3. QUARTERLY GROUNDWATER AND SURFACE WATER SAMPLING

The Monitoring Plan (SFWMD 2009a) and the QAPP (FPL 2013b) for this project outline the locations and analytes for the groundwater and surface water sampling and the analyses for quarterly and semi-annual events. Each groundwater location is a cluster of three wells at different depth intervals. The groundwater wells are designated by depth and are defined as "S" for shallow wells (-15.3 to -34.7 ft North American Vertical Datum of 1988 [NAVD 88] to bottom of screen elevation), "M" for intermediate wells (-32.8 to -85.7 ft NAVD 88 to bottom of screen elevation), and "D" for deep wells (-46.4 to -122.2 ft NAVD 88 to bottom of screen elevation). Surface water samples are also designated by depth, i.e., "T" for top (1 ft below surface) and "B" for bottom (1 ft above bottom). Samples also were collected from several of the historical wells that have been monitored as part of the ID operations. Since the historical wells (L-3, L-5, G-21, G-28, and G-35) are screened across the entire well depth, samples were collected from two depths (18 ft and 58 ft below top of casing).

From June 2010 to May 2013, samples were collected quarterly at specified locations and were analyzed for the parameters as required in the Monitoring Plan. In June 2013, after review by the Agencies, several sites and parameters were dropped from the sampling. Three sites (TPBBSW-1B, TPBBSW-2B, and TPSWCCS-6 [B and T]) and two bottom stations (TPSWCCS-4B and TPSWCCS-5B) were eliminated. Per the Agencies, the data reductions (Tables 3.0-1 and 3.0-2) were as follows:

- Trace metals analyses were eliminated for the Post-Uprate period.
- Stable isotope (carbon ($\delta^{13}C$), oxygen ($\delta^{18}O$), hydrogen (δD), and strontium($^{87}Sr/^{86}Sr$)) analyses were eliminated for the Post-Uprate period.
- Cation and anion analyses with the exception of sodium and chloride, were reduced from quarterly to semi-annually.

Sampling logs from June 2013 to March 2014 are provided in Appendix G. Most of the samples were analyzed by TestAmerica; however, tritium analysis was conducted by the USGS Tritium Laboratory. Details of the analytical methodologies for each analyte are provided in the project QAPP.

For the Post-Uprate, several analytical methods were changed because of interference that impacted result accuracy. For example, several ions have been problematic during analysis because of their low concentrations compared to the other peaks in the chromatogram. In the Post-Uprate, fluoride was switched to a probe analysis method due to frequent interference by the chloride peak. Sulfide was another method that was switched because of frequent non-detect values.

During the Post-Uprate, it was determined that bicarbonate alkalinity was being calculated as "mg/L as $CaCO_3$" instead of "mg/L as HCO_3" per the Monitoring Plan. This laboratory calculation affects all values after September 2010; therefore, a correction factor of x1.22 will have to be applied to datasets after September 2010 to adjust results to report as "mg/L as HCO_3" (TestAmerica 2014).

3.1 GROUNDWATER QUALITY

3.1.1 Sample Collection and Analysis

Groundwater samples were collected in accordance with the QAPP and based on FDEP Standard Operating Procedures (SOPs). Figure 3.1-1 shows a typical setup for the groundwater sampling. Groundwater and surface water sampling logs from June 2013 to March 2014 are included in Appendix G of this report.

3.1.2 Results and Discussion

Values in most of the wells have been fairly consistent in the Post-Uprate period and are similar in range to values observed during the Pre-Uprate period. Tables 3.1-1 through 3.1-4 provide a summary of the groundwater analytical results from the June 2013 through May 2014 sampling events. Results for the sampling events from the historical monitoring wells L-3, L-5, G-21, G-28, and G-35 during the same time period are provided in Tables 3.1-5 through 3.1-8. DUS Reports for all events are provided in Appendix H, and the detailed Level IV laboratory reports from TestAmerica are included in Appendix I. A summary of the ionic ranges Pre- and Post-Uprate is provided in Table 3.1-9.

The only notable changes observed were in TPGW-10D and TPGW-7D, and to a lesser degree to TPGW-11D in this Post-Uprate period. Both TPGW-10D and TPGW-7D had higher specific conductance and ionic concentrations relative to the Pre-Uprate period; the ionic increases in TPGW-10D were observed starting in September 2012 during the Interim Operating Period while the increase in TPGW-7D started in September 2013. This is supported by automated monitoring specific conductance values as shown in Figures 2.1-8 and 2.1-11. A slight ionic and specific conductance increase was also observed in TPGW-11D starting in the Interim Operating Period. The more saline water at TPGW-10D and TPGW-11D remain confined at depth and do not appear to be migrating into the upwards. Further assessment of the water in TPGW-7D is pending as tritium data from June 2013 to March 2014 are still being analyzed by the USGS.

3.1.2.1 Chloride, Sodium, and Specific Conductance

Figures 3.1-2, 3.1-3, and 3.1-4, and Tables 3.1-1 to 3.1-4 show the chloride, sodium, and specific conductance values for the sampling events from June 2013 through March 2014. There was some seasonal variation but lower than that observed in the surface waters. Within a well cluster, the lowest sodium and chloride values were generally observed in the shallow wells; the only exception to this was at TPGW-13 where the intermediate and deep wells had consistently lower

values than the shallow well over the monitoring period (Figures 3.1-2 and -3). The new monitoring wells, which were cased at specific intervals, also had lower variability compared to the historical monitoring wells, which are open throughout most of the well length.

Chloride values in TPGW-13 during the Post-Uprate period were similar to the values during the Pre-Uprate period (Table 3.1-9). Similarly, the ranges observed in the Biscayne Bay wells (TPGW-10, TPGW-11, and TPGW-14) showed the same Post-Uprate patterns with the exception of TPGW-10D and, to a lesser extent, TPGW-11D (Table 3.1-9). Both wells showed an increase in chloride concentrations commensurate with the specific conductance increase observed in the automated and other ionic data. During the Pre-Uprate period through February 2012, TPGW-10D chloride values were reflective of marine waters, but starting from September 2012 during the Interim Operating Period, this well now exhibits a mix of marine and some CCS water. TPGW-11 during the Pre-Uprate had slightly higher chloride values in the intermediate and deep wells relative to the shallow well; the values in the intermediate well have not changed during the Post-Uprate, but chloride concentrations have been increasing in TPGW-11D starting in March 2013 during the Interim Operating Period and into the Post-Uprate.

Terrestrial wells around and to the west of the CCS (TPGW-1 through TPGW-6, TPGW-12, TPGW-L3, TPGW-L5, TPGW-G21, TPGW-G28, and TPGW-G35) had vertical and spatial Post-Uprate sodium, chloride, and specific conductance values similar to those observed during the Pre-Uprate period (Figures 3.1-5, 3.1-6, 3.1-7 and 3.1-8). The range of values observed in the shallow wells or 18 ft depth (in the case of the historical wells) continued to be lower than the samples from depth due to the fresher water lens that overlies the area west of the CCS. This freshwater zone is evident in the upper 20 to 40 ft of the aquifer and increases in depth towards the west; this is supported by the annual USGS induction log results (Appendix E) from the dry season (i.e., April 2014).

Temporally, the chloride, sodium, and specific conductance ranges across the landscape in the shallow wells were not significantly different in the four quarters of Post-Uprate compared to the seven Pre-Uprate events (chloride: $F_{1,150}$=0.06, P=0.804; sodium: $F_{1,150}$=0.47, P=0.504; specific conductance: $F_{1,150}$=1.23, P=0.287). Wells TPGW-7, TPGW-8, and TPGW-9, farthest away from the CCS, were fresh (i.e., less than 500 milligrams per liter [mg/L] chloride and less than 1,275 µS/cm specific conductance) at all depths during the Pre-Uprate period and most of the wells remain fresh during the Post-Uprate. The only exception was TPGW-7D, which showed an increase in chloride, sodium, and specific conductance levels starting in September 2013. Further assessment of the water in TPGW-7D cannot be conducted as tritium data from June 2013 onwards is still pending.

3.1.2.2 Ions

Select ions (calcium, magnesium, potassium, boron, strontium, bromide, fluoride, and sulfate) analysis was reduced to semi-annually beginning in June 2013; sodium and chloride analyses were to continue on a quarterly basis. For the Post-Uprate period, data for both September 2013 and March 2014 are compared against the Pre-Uprate period (quarterly from June 2010 to December 2011). Ionic concentrations at the TPGW sites (Tables 3.1-1 to 3.1-4) appeared to

correspond with specific conductance values in most of the wells and varied seasonally, i.e., lower in the wet season (September 2013) and higher in the dry season (March 2014).

Tri-linear diagrams comparing the Post-Uprate to the Pre-Uprate indicated very little average difference in the overall patterns (Figure 3.1-9). Freshwater sites had low concentrations of ions, while marine-influenced sites generally had higher values. The highest values were observed at TPGW-13 (Table 3.1-9); the ionic chemistry of this site based on the tri-linear diagram showed that for both the Post-Uprate and Pre-Uprate, this station had similar chemistry (i.e., overlapping on the tri-linear diagram) to the marine stations (Figure 3.1-9). The range of values also remained consistent for most of the sites during the Post-Uprate period and Post-Uprate values were consistent with the Pre-Uprate values; the only exceptions were TPGW-7D, TPGW-10D and TPGW-11D which were higher, reflecting the increase in specific conductance observed.

TPGW-8S continues to have high pH (10.77 to 11.86) and high alkalinity (182 to 430 mg/L) in the Post-Uprate, similar to the Pre-Uprate period. The patterns are only observed at this depth at this location, and the alkalinity is mostly due to hydroxide ions indicating a stronger base than found under natural conditions.

3.1.2.4 Nutrients

Tables 3.1-2 and 3.1-4 show the nutrient results for the September 2013 and March 2014 sampling events, while Figure 3.1-10 summarizes the data and compares it to the Pre-Uprate range. For the five groundwater sites monitored, nitrogen occurs primarily as ammonia (greater than 60% of total nitrogen [TN]) across the landscape at all depths. The majority (greater than 90%) of the ammonia was in the form of ammonium and this observation was consistent for both the Post-Uprate and Pre-Uprate periods.

Although TN was slightly higher in September 2013 relative to March 2014, both events were within range of the Pre-Uprate data. Nitrogen concentrations were lowest at TPGW-10 and TPGW-14, followed by TPGW-1, TPGW-2, and TPGW-13. Similar to specific conductance, wells at depth generally had higher nutrient concentrations compared to the shallower wells; the only exception was TPGW-13 where the nutrients in the shallow well were either similar to or higher than the wells at depth for both the Pre- and the Post-Uprate periods.

A one-time collection of nutrient data from TPGW-4 through TPGW-9 indicated that the wells were similar to the data from TPGW-10. Wells TPGW-5 and TPGW-7 showed a gradient of increasing TN with depth. TPGW-8S had high ammonia and unionized ammonia as pH>8 will increase the availability of ammonia. Consequently, this high ammonia contributes to high TKN that results in elevated TN. This result may be an artifact of the unusual chemistry of this site and not an influence from the CCS.

Although TP was slightly higher in September 2013 relative to March 2014, overall, average TP during the Post-Uprate (0.038 ± 0.002 mg/L) in TPGW-13 was lower than in the Pre-Uprate (0.050 ± 0.006 mg/L; $F_{1,74}$=40.58; P<0.001). This Pre-Post Uprate trend was also observed in the other groundwater stations.

3.2 SURFACE WATER QUALITY

3.2.1 Sample Collection and Analysis

Surface water data were initially collected from 19 locations (33 sites), but this was reduced to 16 locations (27 sites) after Agency review in June 2013 (SFWMD 2013a). A list of the sites eliminated is shown in Section 1. The sampling methods follow Florida Department of Environmental Protection protocols and remain the same as described in the Comprehensive Pre-Uprate Report (FPL 2012); samples are still being collected from 1 ft below the surface (T) and 1 ft above the bottom (B) unless the water depths in the CCS, ID, or canals were less than 3 ft. In Biscayne Bay, regardless of water depth, all samples were collected at depth.

3.2.2 Results and Discussion

Tables 3.2-1 through 3.2-4 provide a summary of the surface water analytical results from June 2013 through May 2014. DUS Reports for each event are provided in Appendix H and detailed Level IV laboratory reports from TestAmerica are included in Appendix I. Additionally, the stations have been grouped based on their general characteristics and location, and Table 3.2-5 shows the minimum, maximum, average and standard deviation of these water bodies from June 2013 to March 2014, unless otherwise explicitly stated.

3.2.2.1 Chloride, Sodium, and Specific Conductance

Figures 3.2-1, 3.2-2, and 3.2-3 detail chloride, sodium, and specific conductance values for all surface water stations for the June 2013 through March 2014 sampling events. The values observed were highly dependent on the water body, water management practices, and seasonal conditions. Values were generally lower during the wet season and higher during the dry season.

Surface waters with chloride concentrations greater than 1,500 mg/L are defined as predominantly marine, while those with less than 1,500 mg/L are defined as predominantly fresh (F.A.C. 62-302.200). The Class II/III criteria for specific conductance in freshwater (excluding consideration of background values) is less than 1,275 µS/cm while values higher than 1,275 µS/cm in a coastal environment are often viewed as potentially having some marine influence.

The highest chloride values were observed in the CCS (27,000 to 49,800 mg/L), with the highest values being observed in March 2014 and the lowest values in June 2013. The values observed during the Post-Uprate (average: 39,008 mg/L) were higher than the Pre-Uprate (average: 34,114 mg/L); however, none of the other surrounding water bodies showed a similar increase. Average chloride levels in other canals, as well as in Biscayne Bay, were lower in the Post-Uprate relative to the Pre-Uprate (which encompassed a drought in the spring of 2011).

Biscayne Bay values were influenced by rainfall, proximity to canal inputs, and water depth. Consequently, TPBBSW-3 and TPBBSW-4 are more variable compared to TPBBSW-5, which is

farther south, in deeper water, and not near any inlets to allow exchange with the Atlantic Ocean. The values in TPBBSW-4 are comparable to TPSWC-5, which is located in the Card Sound Canal, just south of the CCS. This station is connected to the Bay and values reflect the conditions in the Bay. Unlike the Pre-Uprate period where differences of up to 8,000 mg/L were observed between the top and bottom at this location, chloride differences during the Post-Uprate were limited (maximum difference of 1,400 mg/L higher at depth in June 2013).

TPSWC-1, TPSWC-2, TPSWC-3, and TPSWC-6 are all considered freshwater stations based on the average chloride, sodium, and specific conductance values for the Post-Uprate period. However, during the dry season, the bottom of these stations can have slightly higher values of chloride and sodium compared to the surface. The sodium values during the Post-Uprate were however, lower than the Pre-Uprate values ($F_{1,336}$=5.44; P=0.030) while the Post-Uprate chloride values were not significantly different than the Pre-Uprate ($F_{1,335}$=0.94; P=0.342). The L-31E west of CCS is not a canal that is actively managed by the SFWMD; consequently, the values observed in TPSWC-1, TPSWC-2, and TPSWC-3 on this canal are primarily driven by rainfall and runoff from the Model Lands marsh. Sites at the top also tended to be fresher compared to depth. A similar pattern was observed at TPSWC-6 which is located on the Card Sound Road canal and is viewed as a control site for the CCS stations. Differences between the top and bottom sites were greatest at TPSWC-3, which was noticeably higher at the bottom relative to the top during December 2013.

Vertical differences were also observed at TPSWID-1, TPSWID-2, and TPSWID-3 during the Post-Uprate period. The chloride concentrations varied seasonally and also with pumping of the ID. The stations were fresh for most of the year (i.e., less than 1,500 mg/L chloride), but became saline at depth with pumping and limited rainfall. Concentrations would then slowly decline with the onset of the rains in the wet season. None of the values observed Post-Uprate, however, even approached the values observed during the 2011 drought that was part of the Pre-Uprate period.

Top and bottom station differences were also observed at TPSWC-4 even though this site is only about 5 ft deep. TPSWC-4 is located along the S-20 canal southwest of the CCS. In January 2014, a weir structure was installed downstream of this site, which resulted in a reduction of flow from the canal into Biscayne Bay. This resulted in a decrease in specific conductance, chloride, and salinity in March 2014 when there would normally have been an increase due to the dry season (as observed in the Pre-Uprate period).

3.2.2.2 Ions and Silica

The seasonal and spatial ion concentrations (calcium, magnesium, potassium, boron, strontium, bromide, fluoride, and sulfate) in the surface water stations followed the observations noted above for sodium and chloride. Ion concentrations in the CCS were higher than those of Biscayne Bay (Table 3.2-5), while the TPSWC and TPSWID ions were generally lower in concentration but varied seasonally with freshwater influence.

Ionic concentrations in the CCS during the Post-Uprate period were generally higher than during the Pre-Uprate years, but there were no differences between the Pre- and the Post-Uprate time periods for any of the other canals or Biscayne Bay. The values in the Bay were similar in range to the values observed by Reich et al. (2006). The tri-linear diagram (Figure 3.2-4) for the average Post-Uprate period showed clear separation between the different water bodies, with TPSWC-6 and the marine/CCS stations forming the endpoints along a spectrum of ionic concentrations. TPSWC-6 was distinct from the freshwater L-31E stations (TPSWC-1, TPSWC-2, and TPSWC-3) and the ID stations, but the marine-influenced (all TPBBSW, all TPSWCCS, TPSWC-4, and TPSWC-5) and CCS stations were ionically similar. These clusters remained consistent between the Post- and Pre-Uprate time periods.

During the Post-Uprate, silica was measured only in the CCS, twice a year at six of the seven original sites (TPSWCCS-6 eliminated). Silica concentrations in the Post-Uprate showed higher values in March 2014 compared to September 2013, and the Pre-Uprate period. Silica was 5.51 ± 0.05 mg/L (average ± standard error) in March 2014 but approximately half the concentration in September 2013 (2.65 ± 0.03 mg/L); these values were also higher than the average (1.63 ± 0.41 mg/L) observed during the Pre-Uprate period. These silica values are within the range observed by the FIU Water Quality monitoring network across Florida Bay (0.000 to 5.731 mg/L) and Biscayne Bay (0.000 to 1.972 mg/L) (Boyer and Briceno 2008).

3.2.2.3 Nutrients

For all statistical analyses of CCS nutrients, all data from the CCS sites where surface water sampling was discontinued (TPSWCCS-4B, -5B, -6T, and -6B) were removed from the analyses. Figure 3.2-5 shows the distribution of nutrient concentration in the surface water for September 2013 and March 2014. The most notable change was the increase in the TN within the CCS in the Post-Uprate period compared to the Pre-Uprate period ($F_{1,28}$=311.44; P<0.001). As almost all the TN in the monitoring stations was from TKN, this change was attributable to the increase of TKN in the Post-Uprate period (13.28 ± 0.76 mg/L) compared to the Pre-Uprate period (2.01 ± 0.05 mg/L) in the CCS (Figure 3.2-6). TKN is sum of ammonia and organic nitrogen (amino acids, urea). These increases in the CCS are from an increase in organic nitrogen sources as the ammonia contribution to the TKN of these samples were only about 1% for both sampling events. Although TKN values were approximately 15 mg/L in the CCS in September 2013, these values had decreased approximately 30% to about 11 mg/L by March 2014.

In the other water bodies, ammonia contribution varied seasonally (i.e., lower in September 2013 relative to March 2014), as well as spatially (the Bay was less than the surface water canal or the ID sites). Ammonia values in the ID and the surface water canals were higher than both the CCS or in Biscayne Bay. This is not unexpected as these canals have biological activity and limited turnover of water most of the year (Figure 3.2-6). The Post-Uprate ammonia patterns were consistent with the Pre-Uprate values (Table 3.2-5), indicating little temporal variability. Similarly, the patterns of the other nitrogen species (i.e., nitrate/nitrite, unionized ammonia, ammonium) did not vary between the Pre- and Post-Uprate either.

Total phosphorus is higher in the Post-Uprate (0.048 ± 0.006 mg/L) compared to the Pre-Uprate (0.028 ± 0.003 mg/L) within the CCS ($F_{1,29}$=6.73; *P*=0.050). These differences are not unexpected given the increase in TN between the same time periods. Both TN and TP are key biological nutrients so an increase in TN is often accompanied by an increase in TP (Quiros 2002). Values in the other water bodies however remained consistent and did not show a similar Pre-Post Uprate increase over the monitoring duration.

TABLES

Table 3.0-1. Groundwater and Surface Water Sampling Locations and Events

Event	Locations	Source Category[1]
Quarterly	TPGW–1, -2, -3, -4, -5, -6, -7, -8, -9, -10, -11, -12, -13, -14; L-3, -5; G-21, -28, -35	GW
	TPBBSW – 1, 2, 3, 4, 5 TPSWC – 1, 2, 3, 4, 5, 6 TPSWID – 1, 2, 3	SW
	TPSWCCS – 1, 2, 3, 4, 5, 6, 7	CCS
Semi-annual	TPGW–3, 4, 5, 6, 7, 8, 9, 11, 13, L-3, L-5, G-21, G-28, G-35	GW
	TPGW – 1, 2, 10, 13, 14	GW - quarterly analytes plus nutrients
	TPBBSW – 1, 2, 3, 4, 5 TPSWC – 1, 2, 3, 4, 5, 6 TPSWID – 1, 2, 3	SW - quarterly analytes plus nutrients
	TPSWCCS – 1, 2, 3, 4, 5, 6, 7	CCS - quarterly analytes plus nutrients

Notes:
[1] = Analytes from Table 3.0-2 plus field parameters (temperature, specific conductivity, DO, percent oxygen saturation, pH, ORP, and salinity) at all stations.

Key:
CCS – Cooling Canal System.
GW – Groundwater.
ORP = Oxidation reduction potential.
SW – Surface Water.
TPBBSW – Biscayne Bay Surface Water.
TPGW – Turkey Point Groundwater.
TPSWC – Turkey Point Surface Water Canal.
TPSWID – Turkey Point Surface Water Interceptor Ditch.
TPSWCCS – Turkey Point Surface Water Cooling Canal System.

Table 3.0-2. Analytes Measured in Groundwater, Surface Water, and the Cooling Canal System

Analyte	Monitoring Plan (Table 2-1) Label	GW	SW	CCS
Chloride (Cl^-)	Ions	Q	Q	Q
Sodium (Na^+)		Q	Q	Q
Other Anions (SO_4^{2-}, F^-, Br^-)	Ions	SA	SA	SA
Other Cations (Ca^{2+}, Mg^{2+}, K^+, Sr^{2+}, B^+)	Ions	SA	SA	SA
Alkalinity	Ions	SA	SA	SA
Ammonia + unionized	Nutrients	SA	SA	SA
Nitrate/Nitrite	Nutrients	SA	SA	SA
Total Kjeldahl Nitrogen	Nutrients	SA	SA	SA
Total Phosphorus	Nutrients	SA	SA	SA
Soluble Reactive Phosphorus	Nutrients	SA	SA	SA
Silica	Nutrients	-	-	SA
Sulfides	Ions	SA	SA	SA
TDS	Other	Q	-	-

Key:
Q = Quarterly event.
SA = Semi-annual event.

Table 3.1-1. Summary of Groundwater Analytical Results from the June 2013 Sampling Event

Parameter	Units	TPGW-1S 6/4/2013		TPGW-1M 6/4/2013		TPGW-1D 6/4/2013		TPGW-2S 6/7/2013		TPGW-2M 6/7/2013		TPGW-2D 6/7/2013		TPGW-3S 6/11/2013		TPGW-3M 6/11/2013		TPGW-3D 6/11/2013		TPGW-4S 6/6/2013		TPGW-4M 6/6/2013		TPGW-4D 6/6/2013		TPGW-5S 6/6/2013		TPGW-5M 6/6/2013		TPGW-5D 6/6/2013	
Temperature	°C	25.75		25.76		25.88		26.22		26.78		26.74		26.08		26.19		25.97		25.4		25.37		25.23		24.11		24.13		24.11	
pH	SU	6.97		7.07		6.91		7.2		6.84		6.94		6.49		6.83		6.74		6.87		7.02		6.86		7.01		6.79		6.95	
Dissolved Oxygen	mg/L	0.21		0.36		0.43		0.23	J	0.28	J	0.56	J	0.88		0.36		1.09		0.6		0.64		0.74		0.39		0.73		1.19	
Specific Conductance	µS/cm	54661		72371		72253		69081		75789		77111		64740		69067		69917	J	1670		39169		43372		1134		32517		34844	
Turbidity	NTU	0.35		0.01		0.1		0.69		0.13		0.08		0.04		0.32		0.3		0.39		0.14		0.16		0.1		0.19		0.22	
Silica, dissolved	mg/L																														
Calcium	mg/L																														
Magnesium	mg/L																														
Potassium	mg/L																														
Sodium	mg/L	10900		15200		15300		16800		18900		18600		13400		14500		14700		178		7540		8800		100		6340		6650	
Boron	mg/L																														
Strontium	mg/L																														
Bromide	mg/L																														
Chloride	mg/L	20500		29800		29900		27700		30900		30000		27300		29300		33000	J	342		13800		16400		204		12100		12700	
Fluoride	mg/L																														
Sulfate	mg/L																														
Total Ammonia	mg/L as N																			0.783		0.585		0.497		0.19	J	0.562		0.558	
Ammonium ion (NH_4^+)	mg/L																			1.00		0.748		0.636		0.243		0.72		0.714	
Unionized NH_3	mg/L																			0.004		0.004		0.003		0.001		0.002		0.003	
Nitrate/Nitrite	mg/L as N																			0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
TKN	mg/L																			1.28		1.13		0.903		0.519		0.829		0.843	
TN	mg/L																			1.29		1.14		0.908		0.524		0.834		0.848	
ortho-Phosphate	mg/L																			0.061	J	0.035	J	0.033	J	0.038		0.042	J	0.039	J
Total Phosphorus (P)	mg/L																			0.002	UJ	0.021	J	0.027	J	0.004	I	0.02	J	0.012	J
Alkalinity	mg/L																														
Bicarbonate Alkalinity	mg/L as $CaCO_3$																														
Sulfide	mg/L																														
Total Dissolved Solids	mg/L	34300		50000		48300		43300		47400		49300		42500		45300		47500		850		21300		25900		613		20800		20800	
Salinity	*	36.17		49.78		49.68		47.6		52.47		53.53		43.8		47.17		47.84	J	0.84	J	24.93		27.92		0.56	J	20.37		21.92	
Tritium	pCi/L (1σ)																														

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
Text in blue is revised.
* PSS-78 salinity is unitless.
Sample 060613-DUP1 is a duplicate of 060613-TPGW-6M.
Sample 060513-DUP1 is a duplicate of 060513-TPGW-9D.
Sample 061213-DUP1 is a duplicate of 061213-TPGW-14S.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-1. Summary of Groundwater Analytical Results from the June 2013 Sampling Event

Parameter	Units	TPGW-6S 6/6/2013		TPGW-6M 6/6/2013		060613-DUP1 6/6/2013		TPGW-6D 6/6/2013		TPGW-7S 6/5/2013		TPGW-7M 6/5/2013		TPGW-7D 6/5/2013		TPGW-8S 6/5/2013		TPGW-8M 6/5/2013		TPGW-8D 6/5/2013		TPGW-9S 6/5/2013		TPGW-9M 6/5/2013		TPGW-9D 6/5/2013		060513-DUP1 6/5/2013	
Temperature	°C	23.84		24.04				24.35		24.26		24.44		24.43		24.36		24.1		24.26		25.04		24.47		24.39			
pH	SU	6.94		7.02				6.83		6.99		6.96		7.04		11.66		6.99		6.88		6.75		6.71		6.89			
Dissolved Oxygen	mg/L	1.13		0.85				0.23		0.2		0.5		0.32		0.74		0.81		0.25		0.28		0.74		1.2			
Specific Conductance	µS/cm	1107		22767				23691		546		559		599		1178		642		677		605		625		642			
Turbidity	NTU	0.98		0.01				1.42		0.95		0.09		0.31		0.35		0.02		0.7		0.12		0.22		0.24			
Silica, dissolved	mg/L																												
Calcium	mg/L																												
Magnesium	mg/L																												
Potassium	mg/L																												
Sodium	mg/L	88.7		4130		4090		4280		19		19.8		25.6		19.1		18		25.3		10.9		11.8		15.5		15.3	
Boron	mg/L																												
Strontium	mg/L																												
Bromide	mg/L																												
Chloride	mg/L	178		7830		8050		8270		34.8		34.1		43.2		34.9		43.8		44.6		19.5		20		27.1		25.2	
Fluoride	mg/L																												
Sulfate	mg/L																												
Total Ammonia	mg/L as N	0.313		0.508		0.525		0.584		0.103		0.129		0.087		0.179		0.139		0.141		0.353		0.305		0.368		0.398	
Ammonium ion (NH_4^+)	mg/L	0.401		0.65				0.748		0.132		0.165		0.111		0.03	U	0.178		0.181		0.452		0.391		0.471			
Unionized NH_3	mg/L	0.002		0.003				0.003		7E-04		8E-04		6E-04		0.216		9E-04		7E-04		0.001		0.001		0.002			
Nitrate/Nitrite	mg/L as N	0.005	U	0.005	U	0.0054	U	0.005	U	0.01		0.006	I	0.014		0.007	I	0.005	U	0.016		0.009	I	0.014		0.024		0.0054	U
TKN	mg/L	0.849		0.523	J	0.767	J	0.712		0.973		1.24		3.43		11.8		0.326		0.471		0.81		0.678		0.793		0.754	
TN	mg/L	0.854		0.528				0.717		0.983		1.25		3.44		11.8		0.331		0.487		0.819		0.692		0.817			
ortho-Phosphate	mg/L	0.054	J	0.037	J	0.0365		0.038	J	0.001	U	0.002	I	0.002	I	0.001	U	0.001	I	0.002	I	0.007	I	0.005	I	0.001	U	0.0014	U
Total Phosphorus (P)	mg/L	0.003	IJ	0.013	J	0.0126		0.013	J	0.006	I	0.007	I	0.007	I	0.004	U	0.01	I	0.011	I	0.013	I	0.038		0.014	I	0.0022	U
Alkalinity	mg/L																												
Bicarbonate Alkalinity	mg/L as $CaCO_3$																												
Sulfide	mg/L																												
Total Dissolved Solids	mg/L	540		12800		13700		13900		264		296		304		280	J	332		352		300		332		332		340	
Salinity	*	0.55	J	13.74				14.35		0.26	J	0.27	J	0.29	J	0.58	J	0.31	J	0.33	J	0.29	J	0.3	J	0.31	J		
Tritium	pCi/L (1σ)																												

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
Text in blue is revised.
* PSS-78 salinity is unitless.
Sample 060613-DUP1 is a duplicate of 060613-TPGW-6M.
Sample 060513-DUP1 is a duplicate of 060513-TPGW-9D.
Sample 061213-DUP1 is a duplicate of 061213-TPGW-14S.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-1. Summary of Groundwater Analytical Results from the June 2013 Sampling Event

Parameter	Units	TPGW-10S 6/13/2013	TPGW-10M 6/13/2013	TPGW-10D 6/13/2013	TPGW-11S 6/12/2013	TPGW-11M 6/12/2013	TPGW-11D 6/12/2013	TPGW-12S 6/4/2013	TPGW-12M 6/4/2013	TPGW-12D 6/4/2013	TPGW-13S 6/11/2013	TPGW-13M 6/11/2013	TPGW-13D 6/11/2013
Temperature	°C	26.58	26.61	26.29	25.94	26.08	26.27	26.21	26.33	26.19	29.57	29.19	29.44
pH	SU	7.53	7.48	6.69	6.79	6.58	6.74	6.51	6.81	7.14	6.73	6.84	6.86
Dissolved Oxygen	mg/L	0.3	0.25	0.34	0.08	0.05	0.2	0.67	0.44	0.16	0.33	0.24	0.66
Specific Conductance	µS/cm	52399	55198	65776	54830	56758	61576	45468	63156	65782	83609	79528	80552
Turbidity	NTU	0.27	0.23	0.29	0.4	0.44	0.41	0.4	0.3	0.38	0.11	0.12	0.26
Silica, dissolved	mg/L												
Calcium	mg/L												
Magnesium	mg/L												
Potassium	mg/L												
Sodium	mg/L	10700	11600	13700	11400	11800	12900	8970	12800	13300	18100	17000	17100
Boron	mg/L												
Strontium	mg/L												
Bromide	mg/L												
Chloride	mg/L	23200	23800	29000	24300	23000	25700	16800	24700	25100	39800	37200	36600
Fluoride	mg/L												
Sulfate	mg/L												
Total Ammonia	mg/L as N												
Ammonium ion (NH_4^+)	mg/L												
Unionized NH_3	mg/L												
Nitrate/Nitrite	mg/L as N												
TKN	mg/L												
TN	mg/L												
ortho-Phosphate	mg/L												
Total Phosphorus (P)	mg/L												
Alkalinity	mg/L												
Bicarbonate Alkalinity	mg/L as $CaCO_3$												
Sulfide	mg/L												
Total Dissolved Solids	mg/L	37000	37300	43500	36100	37200	41900	27100	41600	43300	58500	55600	55400
Salinity	*	34.47	36.55	44.6	36.29	37.74	41.38	29.41	42.58	44.61	58.69	55.38	56.21
Tritium	pCi/L (1σ)												

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
Text in blue is revised.
* PSS-78 salinity is unitless.
Sample 060613-DUP1 is a duplicate of 060613-TPGW-6M.
Sample 060513-DUP1 is a duplicate of 060513-TPGW-9D.
Sample 061213-DUP1 is a duplicate of 061213-TPGW-14S.
KEY:
°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-1. Summary of Groundwater Analytical Results from the June 2013 Sampling Event

		TPGW-14S		061213-DUP1		TPGW-14M		TPGW-14D		060413-FB1		060513-FB1		060613-FB1		060713-FB1		061013-FB1		061113-EB1		061213-FB1		061313-FB1	
Parameter	**Units**	6/12/2013		6/12/2013		6/12/2013		6/12/2013		6/4/2013		6/5/2013		6/6/2013		6/7/2013		6/10/2013		6/11/2013		6/12/2013		6/13/2013	
Temperature	°C	26.77				27.18		27.3																	
pH	SU	6.73				6.78		6.68																	
Dissolved Oxygen	mg/L	0.13				0.2		0.27																	
Specific Conductance	µS/cm	57630				63204		73522																	
Turbidity	NTU	0.04				0.4		0.06																	
Silica, dissolved	mg/L																								
Calcium	mg/L																								
Magnesium	mg/L																								
Potassium	mg/L																								
Sodium	mg/L	11900		12500		13100		15900		0.31	U	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U
Boron	mg/L																								
Strontium	mg/L																								
Bromide	mg/L																								
Chloride	mg/L	24400		24600		27700		32900		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
Fluoride	mg/L																								
Sulfate	mg/L																								
Total Ammonia	mg/L as N											0.026	U	0.0309	I										
Ammonium ion (NH_4^+)	mg/L																								
Unionized NH_3	mg/L																								
Nitrate/Nitrite	mg/L as N											0.0054	U	0.0054	U										
TKN	mg/L											0.236		0.15	U										
TN	mg/L																								
ortho-Phosphate	mg/L											0.0014	U	0.0014	U										
Total Phosphorus (P)	mg/L											0.0022	U	0.0022	U										
Alkalinity	mg/L																								
Bicarbonate Alkalinity	mg/L as $CaCO_3$																								
Sulfide	mg/L																								
Total Dissolved Solids	mg/L	38900		38000		43200		51600				5	U	5	U			5	U	5	U	5	U		
Salinity	*	38.37				42.59		50.64																	
Tritium	pCi/L																								

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
Text in blue is revised.
* PSS-78 salinity is unitless.
Sample 060613-DUP1 is a duplicate of 060613-TPGW-6M.
Sample 060513-DUP1 is a duplicate of 060513-TPGW-9D.
Sample 061213-DUP1 is a duplicate of 061213-TPGW-14S.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-1. Summary of Groundwater Analytical Results from the June 2013 Sampling Event

Parameter	Units	TPGW-14S 6/12/2013		061213-DUP1 6/12/2013		TPGW-14M 6/12/2013		TPGW-14D 6/12/2013		060413-FB1 6/4/2013		060513-FB1 6/5/2013		060613-FB1 6/6/2013		060713-FB1 6/7/2013		061013-FB1 6/10/2013		061113-EB1 6/11/2013		061213-FB1 6/12/2013		061313-FB1 6/13/2013	
Temperature	°C	26.77				27.18		27.3																	
pH	SU	6.73				6.78		6.68																	
Dissolved Oxygen	mg/L	0.13				0.2		0.27																	
Specific Conductance	µS/cm	57630				63204		73522																	
Turbidity	NTU	0.04				0.4		0.06																	
Silica, dissolved	mg/L																								
Calcium	mg/L																								
Magnesium	mg/L																								
Potassium	mg/L																								
Sodium	mg/L	11900		12500		13100		15900		0.31	U	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U
Boron	mg/L																								
Strontium	mg/L																								
Bromide	mg/L																								
Chloride	mg/L	24400		24600		27700		32900		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
Fluoride	mg/L																								
Sulfate	mg/L																								
Total Ammonia	mg/L as N											0.026	U	0.0309	I										
Ammonium ion (NH_4^+)	mg/L																								
Unionized NH_3	mg/L																								
Nitrate/Nitrite	mg/L as N											0.0054	U	0.0054	U										
TKN	mg/L											0.236		0.15	U										
TN	mg/L																								
ortho-Phosphate	mg/L											0.0014	U	0.0014	U										
Total Phosphorus (P)	mg/L											0.0022	U	0.0022	U										
Alkalinity	mg/L																								
Bicarbonate Alkalinity	mg/L as $CaCO_3$																								
Sulfide	mg/L																								
Total Dissolved Solids	mg/L	38900		38000		43200		51600				5	U	5	U			5	U	5	U	5	U		
Salinity	*	38.37				42.59		50.64																	
Tritium	pCi/L (1σ)																								

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
Text in blue is revised.
* PSS-78 salinity is unitless.
Sample 060613-DUP1 is a duplicate of 060613-TPGW-6M.
Sample 060513-DUP1 is a duplicate of 060513-TPGW-9D.
Sample 061213-DUP1 is a duplicate of 061213-TPGW-14S.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-2. Summary of Groundwater Analytical Results from the September 2013 Sampling Event

Parameter	Units	TPGW-1S 09/06/2013		TPGW-1M 09/06/2013		TPGW-1D 09/06/2013		TPGW-2S 09/11/2013		TPGW-2M 09/11/2013		091113-DUP 09/11/2013		TPGW-2D 09/11/2013		TPGW-3S 09/11/2013		TPGW-3M 09/11/2013		TPGW-3D 09/11/2013	
Temperature	°C	26.68		26.74		27.10		26.08		26.48				26.77		26.70		26.61		26.79	
pH	SU	6.99		6.94		6.99		7.12		6.89				6.74		6.63		6.90		6.77	
Dissolved Oxygen	mg/L	0.33		0.40		1.07		0.10		0.09				0.95	J	0.20		0.19		1.93	J
Specific Conductance	µS/cm	34093		72181		70477		66453		75066				77475		63967		67890		70817	
Turbidity	NTU	0.45		0.29		0.24		0.79		0.11				0.09		0.07		0.11		0.28	
Silica, dissolved	mg/L																				
Calcium	mg/L	411		644		653		1080	J	669	J	667		673		653		624		639	
Magnesium	mg/L	726		1610	J-	1650	J-	1210	J	1680	J	1690		1730		1460		1550		1590	
Potassium	mg/L	241		592	J+	614	J+	527	J	614	J	613		628		509		558		569	
Sodium	mg/L	6290		14700		14300		13900	J	15900	J	15800		16200		13300		14300		14300	
Boron	mg/L	2.29		5.83		5.81		5.24		6.33		6.35		6.46		5.05		5.7		5.83	
Strontium	mg/L	6.09		10.8		11.1		13.2		13.5		13.6		13.4		10.8		11.8		11.9	
Bromide	mg/L	45.2	J	92.5		101	J	94.8	J	107	J	108		111	J	91.8		96.5		98.3	
Chloride	mg/L	13500	J	28800		31300	J	28100	J	31800	J	32000		33500	J	27100		28800		29400	
Fluoride	mg/L	0.198	J	0.233	J-	0.251	J-	0.173	J	0.231	J	0.234	J	0.221	J	0.0240	U	0.182	J	0.183	J
Sulfate	mg/L	1570	J	3660		3880	J	3340	J	3900	J	3910		4050	J	3400		3550		3650	
Total Ammonia	mg/L as N	0.948		1.60		1.55		1.57		1.93		1.86		1.85							
Ammonium ion (NH_4^+)	mg/L	1.21		2.05		1.98		2.00		2.47				2.37							
Unionized NH_3	mg/L	0.00716		0.0108		0.0121		0.0153		0.0114				0.00793							
Nitrate/Nitrite	mg/L as N	0.0270	U	0.0280	I	0.0270	U	0.0270	U	0.0299		0.0227		0.0270	U						
TKN	mg/L	1.73	J	2.65	J	2.75	J	2.62		2.64		2.61		3.16							
TN	mg/L	1.76	J	2.68	J	2.78	J	2.65		2.67		2.63		3.19							
ortho-Phosphate	mg/L	0.0222		0.00340	I	0.0447	J	0.0104		0.0358	J	0.0356		0.0343	J						
Total Phosphorus (P)	mg/L	0.0282		0.0346		0.0346	J	0.0131		0.0204	J	0.0218		0.0169	J						
Alkalinity	mg/L	291	J	183		183	J	103	J	194	J	194		193	J	406		234		224	
Bicarbonate Alkalinity	mg/L as $CaCO_3$	291	J	183		183	J	103	J	194	J	194		193	J	406		234		224	
Sulfide	mg/L	1.46		1.00	U	1.38		1.24		1.01		1.09		1.01		11.0		1.17		1.63	
Total Dissolved Solids	mg/L	20900		49800		49000		43200		53600		51400		51800		41100		44700		45200	
Dissolved Inorganic Carbon	mg/L																				
Salinity	*	21.35		49.6		48.24		45.13		51.9				53.82		43.2		46.23		48.51	
Tritium	pCi/L (1σ)																				

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
Text in blue is revised.
* PSS-78 salinity is unitless.
Sample 090413-DUP1 is a duplicate of TPGW-8M.
Sample 091113-DUP1 is a duplicate of TPGW-2M.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-2. Summary of Groundwater Analytical Results from the September 2013 Sampling Event

Parameter	Units	TPGW-4S 09/03/2013		TPGW-4M 09/03/2013		TPGW-4D 09/03/2013		TPGW-5S 09/03/2013		TPGW-5M 09/03/2013		TPGW-5D 09/03/2013		TPGW-6S 09/03/2013		TPGW-6M 09/03/2013		TPGW-6D 09/03/2013		TPGW-7S 09/04/2013		TPGW-7M 09/04/2013		TPGW-7D 09/04/2013	
Temperature	°C	25.60		25.22		25.32		25.17		24.92		25.04		24.44		24.35		24.71		24.61		24.49		24.56	
pH	SU	6.65		6.94				7.16		6.64		6.99		6.75		6.87		6.69		6.95		6.96		6.90	
Dissolved Oxygen	mg/L	0.47		1.26	J	0.84		0.75	J	1.20		0.93	J	0.46		0.33	J	0.30		0.28		0.20		1.05	
Specific Conductance	µS/cm	1815		39421		43517		1028		33043		35014		1182		22893		23830		539		553		738	
Turbidity	NTU	0.30		0.53		0.39		0.47		0.40		0.34		0.10		0.53		0.10		1.99		0.00	J	0.44	
Silica, dissolved	mg/L																								
Calcium	mg/L	139		591	J-	584	J-	109		609	J-	580	J-	119		497	J-	507	J-	79.0		82.6		95.1	
Magnesium	mg/L	18.6		784		890		7.08		646		664		11.5		403		419		3.87		3.91		4.41	
Potassium	mg/L	4.04		200		269		5.74		150		173		4.69		102		106		7.49		7.19		5.27	
Sodium	mg/L	189		7080	J-	8130		80.6		5910	J-	6170	J-	99.5		3790	J-	3970	J-	18.4		19.7		38.4	
Boron	mg/L	0.0667		1.42		2.11		0.0497	I	1.02		1.25		0.0605		0.789		0.813		0.0446	I	0.0489	I	0.0602	
Strontium	mg/L	1.3		7.44		7.84		1.08		7.08		7.21		1.2		7.75		7.88		0.785		0.818		0.934	
Bromide	mg/L	1.30		46.6		55.1		0.584		37.9		44.1		0.727		26.5		27.7		0.147		0.152		0.348	
Chloride	mg/L	400		15500		17600		170		13100		13700		208		8120		8980		35.0		36.4		90.8	
Fluoride	mg/L	0.0900	I	0.125		0.131		0.112		0.119		0.128		0.120		0.133		0.133		0.118		0.114		0.112	
Sulfate	mg/L	9.40		1690		1990		16.9		1340		1480		8.87		825		872		22.1		23.7		25.7	
Total Ammonia	mg/L as N																								
Ammonium ion (NH_4^+)	mg/L																								
Unionized NH_3	mg/L																								
Nitrate/Nitrite	mg/L as N																								
TKN	mg/L																								
TN	mg/L																								
ortho-Phosphate	mg/L																								
Total Phosphorus (P)	mg/L																								
Alkalinity	mg/L	332		212		203		244		228		222		282		210		217		199		203		201	
Bicarbonate Alkalinity	mg/L as $CaCO_3$	332		212		203		244		228		222		282		210		217		199		203		201	
Sulfide	mg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.30		1.00	U	1.77		1.38		1.06		1.22	
Total Dissolved Solids	mg/L	900		24000		27300		507		19900		20500		607		13900		14000		276		284		408	
Dissolved Inorganic Carbon	mg/L																								
Salinity	*	0.9	J	25.1		28.0		0.51	J	20.7		22.0		0.59	J	13.82		14.43		0.26	J	0.27	J	0.36	J
Tritium	pCi/L (1σ)																								

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
Text in blue is revised.
* PSS-78 salinity is unitless.
Sample 090413-DUP1 is a duplicate of TPGW-8M.
Sample 091113-DUP1 is a duplicate of TPGW-2M.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-2. Summary of Groundwater Analytical Results from the September 2013 Sampling Event

Parameter	Units	TPGW-8S 09/04/2013		TPGW-8M 09/04/2013		090413-DUP 09/04/2013		TPGW-8D 09/04/2013		TPGW-9S 09/04/2013		TPGW-9M 09/04/2013		TPGW-9D 09/04/2013		TPGW-10S 09/12/2013		TPGW-10M 09/12/2013		TPGW-10D 09/12/2013	
Temperature	°C	24.84		25.01				25.25		26.10		25.78		25.65		27.48		27.46		27.23	
pH	SU	10.77	J	6.78				6.78		6.66		6.68		6.65		7.31		7.32		6.97	
Dissolved Oxygen	mg/L	1.48		0.56				0.18		0.50		0.45		0.39		0.25		0.12		0.62	J
Specific Conductance	µS/cm	1139	J	642				681		594		639		644		51928		54309		66489	
Turbidity	NTU	0.23		0.10				0.96		2.31		0.54		0.09		0.17		0.08		0.14	
Silica, dissolved	mg/L																				
Calcium	mg/L	102		102		102		101		114		117		111		506		506		649	
Magnesium	mg/L	0.564		3.74		3.69		5.93		2.51		3.15		3.61		1400	J-	1390	J-	1740	J-
Potassium	mg/L	9.55		9.94		9.71		8.92		4.20		6.64		3.87		486		503		626	
Sodium	mg/L	18.3		17.3		17.0		26.6		8.05		12.3		15.2		12000	J-	11900	J-	15200	J-
Boron	mg/L	0.043	I	0.065		0.064		0.0786		0.0346	I	0.0492	I	0.0528		5.12		5.27		6.32	
Strontium	mg/L	0.576		1.03		1.01		1.05		0.811		0.968		1.14		8.83		9.43		11.8	
Bromide	mg/L	0.211		0.215		0.216		0.251		0.151		0.248		0.369		71.6		75.4		91.7	
Chloride	mg/L	34.0		32.6		32.9		45.6		15.8		22.5		28.0		21100		22400		26900	
Fluoride	mg/L	0.0813	I	0.0947	I	0.0939	I	0.103		0.0885	I	0.0870	I	0.0908	I	0.748	J-	0.585	J-	0.250	J-
Sulfate	mg/L	46.7		58.7		58.5		53.9		3.09		18.1		29.7		2760		2880		3400	
Total Ammonia	mg/L as N															0.413		0.298		0.796	
Ammonium ion (NH_4^+)	mg/L															0.524		0.378		1.02	
Unionized NH_3	mg/L															0.00684		0.00504		0.00597	
Nitrate/Nitrite	mg/L as N															0.128		0.00540	U	0.00998	I
TKN	mg/L															0.741	J	0.762	J	1.17	J
TN	mg/L															0.87	J	0.77	J	1.18	J
ortho-Phosphate	mg/L															0.0222	J	0.0206	J	0.0400	J
Total Phosphorus (P)	mg/L															0.00907	I J	0.00601	I J	0.0135	J
Alkalinity	mg/L	182		226		223		227		286		284		266		130		117		157	
Bicarbonate Alkalinity	mg/L as $CaCO_3$	1.00	U	226		223		227		286		284		266		130		117		157	
Sulfide	mg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.26		1.00	U	1.00	U	5.06		1.51		3.75	
Total Dissolved Solids	mg/L	307	J	356		344		368		308		332		348		38100		41300		46900	
Dissolved Inorganic Carbon	mg/L																				
Salinity	*	0.56	J	0.31	J			0.33	J	0.29	J	0.31	J	0.31	J	34.07		35.86		45.13	
Tritium	pCi/L (1σ)																				

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
Text in blue is revised.
* PSS-78 salinity is unitless.
Sample 060613-DUP1 is a duplicate of 060613-TPGW-6M.
Sample 060513-DUP1 is a duplicate of 060513-TPGW-9D.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-2. Summary of Groundwater Analytical Results from the September 2013 Sampling Event

		TPGW-11S		TPGW-11M		TPGW-11D		TPGW-12S		TPGW-12M		TPGW-12D		TPGW-13S		TPGW-13M		TPGW-13D		TPGW-14S		TPGW-14M		TPGW-14D	
Parameter	**Units**	09/12/2013		09/12/2013		09/12/2013		09/06/2013		09/06/2013		09/06/2013		09/06/2013		09/06/2013		09/06/2013		09/12/2013		09/12/2013		09/12/2013	
Temperature	°C	27.19		27.24		26.71		27.05		27.38		27.43		29.53		29.27		29.58		27.36		27.37		27.40	
pH	SU	6.96		6.60		6.82		6.57		6.81		7.20		6.77		6.85		6.84		6.92		6.83		6.70	
Dissolved Oxygen	mg/L	0.46		0.75	J	0.61		0.11		0.13		0.26		0.02		0.32		0.13		0.19		0.03		1.10	J
Specific Conductance	µS/cm	54061		58157		59926		43559		65648		64449		83887		78994		80613		57102		61790		75201	
Turbidity	NTU	0.16		0.00	J	0.26		0.54		0.41		1.19		1.07		0.05		0.03		0.06		0.50		0.21	
Silica, dissolved	mg/L																								
Calcium	mg/L	545		596		622		501		616		605		758	J	693		722		547		662		671	
Magnesium	mg/L	1360	J-	1390	J-	1470	J-	968		1480	J-	1430	J-	2010	J-	1720	J-	1850	J-	1370	J-	1590	J-	1790	J-
Potassium	mg/L	500		498		526		330		526	J+	523	J+	753	J+	702	J+	683	J+	484		601		652	
Sodium	mg/L	11900	J-	12500	J-	13200	J-	8310		12600		13000		17700	J	16500		16500		12100	J-	14500	J-	15500	J-
Boron	mg/L	5.5		5.44		5.38		3.36		4.95		4.98		7.55		6.89		6.98		5.09		6.15		6.57	
Strontium	mg/L	9.33		9.84		10.7		6.89		9.89		9.85		13.9		14.2		13.4		9.34		11.9		13.1	
Bromide	mg/L	75.5		78.1		84.7		55.7		85.0		89.9		122	J	113	J	116	J	79.0		84.7		108	J
Chloride	mg/L	22300		23300		25400		17600		28300		27800		37300	J	34700	J	36400	J	23500		25100		32900	J
Fluoride	mg/L	0.780	J-	0.531	J-	0.600	J-	0.395		0.243	J-	0.239	J-	0.354	J-	0.193	J-	0.212	J-	0.484	J-	0.409	J-	0.377	V J-
Sulfate	mg/L	2890		2920		3140		2170		3550		3500		4820	J	4120	J	4580	J	2980		3160		3900	J
Total Ammonia	mg/L as N													2.59		1.45	J+	1.73		0.479		0.972		2.08	
Ammonium ion (NH_4^+)	mg/L													3.31		1.85	J+	2.21		0.612		1.24		2.67	
Unionized NH_3	mg/L													0.0144		0.00950	J+	0.0113		0.00323		0.00534		0.00850	
Nitrate/Nitrite	mg/L as N													0.0402	I	0.0892		0.0482	I	0.00645	I	0.00967	I	0.00917	I
TKN	mg/L													4.27		3.04	J+	3.00		1.31	J	1.53	J	3.00	J
TN	mg/L													4.31		3.13	J+	3.05		1.32	J	1.54	J	3.01	J
ortho-Phosphate	mg/L													0.0500	J	0.00163	I	0.0122		0.0505	J	0.077	J	0.0612	J
Total Phosphorus (P)	mg/L													0.0382	J	0.0378		0.0294		0.0332	J	0.0545	J	0.024	J
Alkalinity	mg/L	288		333		280		562		210		193		187	J	190	J	183	J	254		278		219	J
Bicarbonate Alkalinity	mg/L as $CaCO_3$	288		333		280		562		210		193		187	J	190	J	183	J	254		278		219	J
Sulfide	mg/L	13.3		10.3		12.9		17.2		1.89		1.00	U	9.45		1.00	U	1.00	U	9.71		10.2		6.14	
Total Dissolved Solids	mg/L	37500		40400		43200		27300		45600		45000		59900		54000		56000		41500		43100		52000	
Dissolved Inorganic Carbon	mg/L																								
Salinity	*	35.68		38.75		40.11		28.01		44.47		43.54		58.93		54.95		56.25		37.85		41.5		51.98	
Tritium	pCi/L (1σ)																								

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
Text in blue is revised.
* PSS-78 salinity is unitless.
Sample 060613-DUP1 is a duplicate of 060613-TPGW-6M.
Sample 060513-DUP1 is a duplicate of 060513-TPGW-9D.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-2. Summary of Groundwater Analytical Results from the September 2013 Sampling Event

		090313-FB1		090413-FB1		090613-EB1		091113-FB1		091213-FB1	
Parameter	Units	09/03/2013		09/04/2013		09/06/2013		09/11/2013		09/12/2013	
Temperature	°C										
pH	SU										
Dissolved Oxygen	mg/L										
Specific Conductance	µS/cm										
Turbidity	NTU										
Silica, dissolved	mg/L					0.0500	U				
Calcium	mg/L	0.100	U	0.100	U	0.100	U	0.100	U	0.100	U
Magnesium	mg/L	0.0200	U	0.0200	U	0.0267	I	0.0200	U	0.0200	U
Potassium	mg/L	0.190	U	0.190	U	0.190	U	0.190	U	0.190	U
Sodium	mg/L	0.310	U	0.310	U	0.310	U	0.310	U	0.310	U
Boron	mg/L	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Strontium	mg/L	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Bromide	mg/L	0.0130	U	0.0130	U	0.0130	U	0.0130	U	0.0130	U
Chloride	mg/L	0.250	U	0.250	U	0.250	U	0.250	U	0.250	U
Fluoride	mg/L	0.0240	U	0.0240	U	0.0240	U	0.179		0.0240	U
Sulfate	mg/L	0.250	U	0.250	U	0.250	U	0.250	U	0.250	U
Total Ammonia	mg/L as N					0.0314	I			0.0262	I
Ammonium ion (NH_4^+)	mg/L										
Unionized NH_3	mg/L										
Nitrate/Nitrite	mg/L as N					0.0270	U			0.00540	U
TKN	mg/L					0.294				0.311	
TN	mg/L										
ortho-Phosphate	mg/L					0.00140	U			0.00140	U
Total Phosphorus (P)	mg/L					0.00220	U			0.00220	U
Alkalinity	mg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
Bicarbonate Alkalinity	mg/L as $CaCO_3$	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
Sulfide	mg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
Total Dissolved Solids	mg/L	5.00	U	5.00	U	5.00	U	5.00	U		
Dissolved Inorganic Carbon	mg/L										
Salinity	*										
Tritium	pCi/L (1σ)										

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
Text in blue is revised.
* PSS-78 salinity is unitless.
Sample 060613-DUP1 is a duplicate of 060613-TPGW-6M.
Sample 060513-DUP1 is a duplicate of 060513-TPGW-9D.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-3. Summary of Groundwater Analytical Results from the December 2013 Sampling Event

		TPGW-1S	TPGW-1M	TPGW-1D	TPGW-2S	TPGW-2M	TPGW-2D	TPGW-3S	TPGW-3M	TPGW-3D	TPGW-4S	TPGW-4M	TPGW-4D	TPGW-5S	TPGW-5M	TPGW-5D	TPGW-6S	TPGW-6M	TPGW-6D	120413-DUP
Parameter	**Units**	12/04/2013	12/04/2013	12/04/2013	12/05/2013	12/05/2013	12/05/2013	12/02/2013	12/02/2013	12/02/2013	12/03/2013	12/03/2013	12/03/2013	12/04/2013	12/04/2013	12/04/2013	12/04/2013	12/04/2013	12/04/2013	12/04/2013
Temperature	°C	26.27	26.32	26.39	25.88	26.22	26.52	25.78	25.73	25.83	25.56	25.39	25.13	24.17	24.15	24.00	23.94	24.10	24.16	
pH	SU	6.92	6.99	6.93	7.01	6.86	6.83	6.55	6.81	6.79	6.80	6.80	6.88	7.08	6.79	6.81	7.04	6.85	6.85	
Dissolved Oxygen	mg/L	0.17	0.23	0.15	0.21	0.20	0.25	0.45	0.13	0.35	0.24	0.27	0.22	0.57	0.47	0.37	0.35	0.37	1.54	
Specific Conductance	µS/cm	40990	71492	71410	68018	74691	75916	63968	67946	69433	2057	38730	43259	1120	32585	34738	1185	22688	23614	
Turbidity	NTU	0.18	0.08	0.02	0.35	0.01 J	0.14	0.06	0.00 J	0.15	0.01 J	0.79	0.01 J	0.04	0.01 J	0.00 J	0.24	0.03	0.22	
Silica, dissolved	mg/L																			
Calcium	mg/L																			
Magnesium	mg/L																			
Potassium	mg/L																			
Sodium	mg/L	7980	15300	15100	14400	15900	16300	13400	13900	14800	228	7330	8400	98.5	6040	6430	103	3950	4050	4220
Boron	mg/L																			
Strontium	mg/L																			
Bromide	mg/L																			
Chloride	mg/L	13500	29400	29400	27300	30500	30300	25200	27400	28600	460	15100	16300	202	11900	12500	223	7980	8350	8930
Fluoride	mg/L																			
Sulfate	mg/L																			
Total Ammonia	mg/L as N																			
Ammonium ion (NH_4^+)	mg/L																			
Unionized NH_3	mg/L																			
Nitrate/Nitrite	mg/L as N																			
TKN	mg/L																			
TN	mg/L																			
ortho-Phosphate	mg/L																			
Total Phosphorus (P)	mg/L																			
Alkalinity	mg/L																			
Bicarbonate Alkalinity	mg/L as $CaCO_3$																			
Sulfide	mg/L																			
Total Dissolved Solids	mg/L	26000	48700	47700	46600	53400	54800	43300	46300	47700	1020	22900	26900	613	19900	19900	600	13800	13500	13800
Salinity	*	26.2	49.1	49.0	46.4	51.6	52.6	43.2	46.3	47.5	1.1 J	24.6	27.8	0.6 J	20.4	21.9	0.6 J	13.7	14.3	
Tritium	pCi/L																			

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
Text in blue is revised.
* PSS-78 salinity is unitless.
Sample 120413-DUP is a duplicate of TPGW-6D.
Sample 120213-DUP is a duplicate of TPGW-13S.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-3. Summary of Groundwater Analytical Results from the December 2013 Sampling Event

Parameter	Units	TPGW-7S		TPGW-7M		TPGW-7D		TPGW-8S		TPGW-8M		TPGW-8D		TPGW-9S		TPGW-9M		TPGW-9D		TPGW-10S		TPGW-10M		TPGW-10D		TPGW-11S		TPGW-11M		TPGW-11D		TPGW-12S		TPGW-12M		TPGW-12D	
		12/03/2013		12/03/2013		12/03/2013		12/03/2013		12/03/2013		12/03/2013		12/03/2013		12/03/2013		12/03/2013		12/11/2013		12/11/2013		12/11/2013		12/11/2013		12/11/2013		12/11/2013		12/11/2013		12/05/2013		12/05/2013		12/05/2013	
Temperature	°C	24.25		24.09		24.21		24.52		25.24		24.17		25.16		24.16		24.37		26.59		26.52		26.09		26.07		25.88		25.76		25.96		26.04		26.23	
pH	SU	7.19		7.14		6.90		11.41		6.93		7.06		6.80		6.92		6.83		7.15		7.16		6.99		6.82		6.62		6.73		6.54		6.77		7.10	
Dissolved Oxygen	mg/L	0.27		0.24		0.27		0.34		0.29		0.29		0.57		0.24		0.61		0.39		0.25		0.35		0.30		0.55		0.69		0.75		0.15		0.31	
Specific Conductance	µS/cm	535		558		1056		1412		632		669		595		621		638		52766		55326		65884		55215		57021		61193		43162		61327		64659	
Turbidity	NTU	0.01	J	0.06		0.25		0.82		0.09		0.44		0.67		0.21		0.12		0.08		0.00	J	0.00	J	0.00	J	0.35		0.17		0.21		0.20		0.49	
Silica, dissolved	mg/L																																				
Calcium	mg/L																																				
Magnesium	mg/L																																				
Potassium	mg/L																																				
Sodium	mg/L	18.8		20.2		59.4		18.2		16.7		25.1		8.77		12.7		15.5		10900		11500		14300		11500		12000		12800		8180		12900		13700	
Boron	mg/L																																				
Strontium	mg/L																																				
Bromide	mg/L																																				
Chloride	mg/L	34.0		35.0		180		32.4		30.8		42.2		16.4		22.4		27.1		20900		25600		26600		23000		23000		23400		16400		24100		26200	
Fluoride	mg/L																																				
Sulfate	mg/L																																				
Total Ammonia	mg/L as N																																				
Ammonium ion (NH_4^+)	mg/L																																				
Unionized NH_3	mg/L																																				
Nitrate/Nitrite	mg/L as N																																				
TKN	mg/L																																				
TN	mg/L																																				
ortho-Phosphate	mg/L																																				
Total Phosphorus (P)	mg/L																																				
Alkalinity	mg/L																																				
Bicarbonate Alkalinity	mg/L as $CaCO_3$																																				
Sulfide	mg/L																																				
Total Dissolved Solids	mg/L	236		268		620		300		308		376		292		324		312		34500		35300		43500		35100		38500		41400		27100		40000		43100	
Salinity	*	0.3	J	0.3	J	0.5	J	0.7	J	0.3	J	0.3	J	0.3	J	0.3	J	0.3	J	34.7		36.7		44.7		36.6		37.9		41.1		27.8		41.2		43.7	
Tritium	pCi/L																																				

NOTES:
Laboratory anion and cation results ar
Text in blue is revised.
* PSS-78 salinity is unitless.
Sample 120413-DUP is a duplicate of
Sample 120213-DUP is a duplicate of
KEY:
°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centime
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
FB = Field blank.
I = Value between the MDL and PQL.

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
Text in blue is revised.
* PSS-78 salinity is unitless.
Sample 120413-DUP is a duplicate of TPGW-6D.
Sample 120213-DUP is a duplicate of TPGW-13S.
KEY:
°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
FB = Field blank.
I = Value between the MDL and PQL.

J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-3. Summary of Groundwater Analytical Results from the December 2013 Sampling Event

		TPGW-13S		120213-DUP		TPGW-13M		TPGW-13D		TPGW-14S		TPGW-14M		TPGW-14D		120213-EB1		120313-FB1		120413-FB1		120513-FB1		120613-FB1		121113-FB1	
Parameter	**Units**	12/02/2013		12/02/2013		12/02/2013		12/02/2013		12/11/2013		12/11/2013		12/11/2013		12/02/2013		12/03/2013		12/04/2013		12/05/2013		12/06/2013		12/11/2013	
Temperature	°C	28.75				28.80		29.01		26.36		26.44		26.18													
pH	SU	6.84				6.85		6.92		6.79		6.70		6.73													
Dissolved Oxygen	mg/L	0.19				0.10		1.10		0.36		0.34		0.39													
Specific Conductance	µS/cm	82973				78333		80246		57523		62249		74211													
Turbidity	NTU	0.01	J			0.01	J	0.06		0.00	J	0.16		0.87													
Silica, dissolved	mg/L																										
Calcium	mg/L																										
Magnesium	mg/L																										
Potassium	mg/L																										
Sodium	mg/L	17200		17400		16500		16800		12000		12800		15900		0.310	U	0.310	U	0.310	U	0.310	U	0.310	U	0.310	U
Boron	mg/L																										
Strontium	mg/L																										
Bromide	mg/L																										
Chloride	mg/L	35100		41800		33000		33200		22500		25500		27900		0.250	U	0.250	U	0.250	U	0.250	U	0.250	U	0.313	I
Fluoride	mg/L																										
Sulfate	mg/L																										
Total Ammonia	mg/L as N																										
Ammonium ion (NH_4^+)	mg/L																										
Unionized NH_3	mg/L																										
Nitrate/Nitrite	mg/L as N																										
TKN	mg/L																										
TN	mg/L																										
ortho-Phosphate	mg/L																										
Total Phosphorus (P)	mg/L																										
Alkalinity	mg/L																										
Bicarbonate Alkalinity	mg/L as $CaCO_3$																										
Sulfide	mg/L																										
Total Dissolved Solids	mg/L	58900		58800		54700		55900		37100		39300		50200		5.00	U	5.00	U	5.00	U	5.00	U	5.00	U	64.0	
Salinity	*	58.2				54.4		56.0		38.3		41.9		51.2													
Tritium	pCi/L																										

NOTES:
Laboratory anion and cation results a
Text in blue is revised.
* PSS-78 salinity is unitless.
Sample 120413-DUP is a duplicate of
Sample 120213-DUP is a duplicate of
KEY:
°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centime
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
FB = Field blank.
I = Value between the MDL and PQL.

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
Text in blue is revised.
* PSS-78 salinity is unitless.
Sample 120413-DUP is a duplicate of TPGW-6D.
Sample 120213-DUP is a duplicate of TPGW-13S.
KEY:
°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
FB = Field blank.
I = Value between the MDL and PQL.

J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(

pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-4. Summary of Groundwater Analytical Results from the March 2014 Sampling Event

Parameter	Units	TPGW-1S 03/11/2014		TPGW-1M 03/11/2014		TPGW-1D 03/11/2014		TPGW-2S 03/04/2014		TPGW-2M 03/04/2014		030414-DUP 03/04/2014		TPGW-2D 03/04/2014		TPGW-3S 03/04/2014		TPGW-3M 03/04/2014		TPGW-3D 03/04/2014		TPGW-4S 03/10/2014		TPGW-4M 03/10/2014		TPGW-4D 03/10/2014	
Temperature	°C	26.07		25.89		26.35		25.73		25.65				25.99		26.08		25.71		26.18		25.32		25.05		25.20	
pH	SU	7.02		7.07		6.87		7.06		6.91				6.66		6.57		6.90		6.81		6.87		6.89		6.81	
Dissolved Oxygen	mg/L	0.33		0.28		0.63		0.14		0.19				0.19		0.16		0.12		0.28		0.44		0.30		0.66	
Specific Conductance	µS/cm	41613		70203		71364		68244	J	74618				76333		63180		67828		69489		2485		38121		42719	
Turbidity	NTU	0.27		0.34		0.23		0.11		0.10				0.09		0.06		0.07		0.02		0.15		0.02		0.00	J
Calcium	mg/L	454		634		637		691		692		675		700		675		632	J	646		166		579		558	
Magnesium	mg/L	909		1660		1630		1510		1760		1690		1810		1480		1540	J	1560		28.1		835		944	
Potassium	mg/L	300		602		600		554		621		611		653		516		556	J	574		5.19		201		258	
Sodium	mg/L	8190		15300	J	15400	J+	14200		15900		15800		16200		13200		14300	J	15200	J	291		7530		8700	
Boron	mg/L	3.03		6.06		5.99		5.96		6.51		6.48		6.85		5.02		5.78		5.90		0.08		1.52		2.11	
Strontium	mg/L	7.83		12.00		12.10		13.10		14.30		14.00		14.40		11.10		12.00		12.30		1.55		7.91		8.12	
Bromide	mg/L	52.1		97.4		98.6		92.5	J	104.0		102.0		106.0		84.3		92.2	J	95.3		2.2		49.7		53.5	
Chloride	mg/L	14700		27300		27500		27600	J	30700		30700		31000		25400		27500	J	26500		609		14000		15600	
Fluoride	mg/L	0.223		0.259	J	0.281	J-	0.224	J	0.269	J	0.270		0.243	J	0.206	J	0.194	J	0.201	J-	0.099	I	0.128		0.135	
Sulfate	mg/L	2000		3960		3800		3830	J	4130		4380		4370		3950		4380	J	3700		27		1780		2100	
Total Ammonia	mg/L as N	1.290		1.240	J	1.620	J-	1.490		1.940		1.920		1.240													
Ammonium ion (NH_4^+)	mg/L	1.65		1.58	J	2.07	J-	1.90		2.48				1.59													
Unionized NH_3	mg/L	0.01000		0.01060	J	0.00908	J-	0.01240		0.01140				0.00419													
Nitrate/Nitrite	mg/L as N	0.0270	U	0.0270	U	0.0270	U	0.0337	I	0.0336	I	0.0316	I	0.0318	I												
TKN	mg/L	1.83		2.23		2.20		2.06		2.88		2.75		2.78													
TN	mg/L	1.86		2.26		2.23		2.09		2.91		2.78		2.81													
ortho-Phosphate	mg/L	0.0101	J	0.0101	J	0.0460		0.0177	J	0.0425	J	0.0417		0.0449													
Total Phosphorus (P)	mg/L	0.0039	IJ	0.0022	UJ	0.0570		0.0022	UJ	0.0290	J	0.0313		0.0439													
Alkalinity	mg/L	269		182		180		185	J	202		203		197		484		241	J	223		322		211		203	
Bicarbonate Alkalinity	mg/L as $CaCO_3$	269		182		180		185	J	202		203		197		484		241	J	223		322		211		203	
Sulfide	mg/L	1.00	U	1.00	U	1.00	U	1.00	U Q	1.00	U Q	1.00	U Q	1.00	U	22.00	Q	1.00	U Q	1.00	U Q	1.00	U	1.00	U	1.00	U
Total Dissolved Solids	mg/L	25300		48800		48700		47800		53100		52700		55200		42000		47000		47700		1390		23100		26900	
Salinity	*	26.63		48.06		48.96		46.53	J	51.56				52.93		42.61		46.22		47.5		1.27	J	24.19		27.45	
Tritium	pCi/L (1σ)																										

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
* PSS-78 salinity is unitless.
Sample 030414-DUP1 is a duplicate of TPGW-2M.
Sample 031114-DUP1 is a duplicate of TPGW-7M.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
Q = Holding time exceeded.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-4. Summary of Groundwater Analytical Results from the March 2014 Sampling Event

		TPGW-5S		TPGW-5M		TPGW-5D		TPGW-6S		TPGW-6M		TPGW-6D		TPGW-7S		TPGW-7M		031114-DUP		TPGW-7D		TPGW-8S		TPGW-8M		TPGW-8D	
Parameter	**Units**	03/11/2014		03/11/2014		03/11/2014		03/05/2014		03/05/2014		03/05/2014		03/11/2014		03/11/2014		03/11/2014		03/11/2014		03/10/2014		03/10/2014		03/10/2014	
Temperature	°C	23.87		24.04		23.80		23.84		23.93		23.92		23.50		23.40				23.48		24.06		23.80		24.17	
pH	SU	7.24		6.61		6.80		7.10		6.81		6.90		7.22		7.20				6.64		11.86		7.10		6.87	
Dissolved Oxygen	mg/L	0.53		0.79		0.48		0.35		0.73		0.21		0.37		0.37				0.97		0.43		0.45		0.73	
Specific Conductance	µS/cm	1012		32620		34101		1211		22635		23241		527		534				3029		1978	J	629		655	
Turbidity	NTU	0.38		0.21		0.22		0.01	J	0.00	J	0.06		0.42		0.36				0.12		0.41		0.04		0.14	
Calcium	mg/L	109		578		566		124		478		494		86		85		85		261		175	J	112		103	
Magnesium	mg/L	7.2		632		687		12.1		412		439		4.27		4.04		4.04		11.5		0.02	UJ	4.18		5.65	
Potassium	mg/L	5.8		142		176		4.65		101		107		7.7		7.57		7.44		8.38		10.2	J	11.4		9.11	
Sodium	mg/L	86		6060		6570		104		3910		4160		20		20		20		278		18	J	17		24	
Boron	mg/L	0.07		0.99		1.35		0.06		0.80		0.85		0.05		0.05		0.05		0.06		0.05		0.07		0.07	
Strontium	mg/L	1.07		7.37		7.80		1.23		7.97		8.23		0.84		0.83		0.82		2.64		0.62		1.13		1.04	
Bromide	mg/L	0.6		40.2		43.9		0.8		27.0		27.7		0.2		0.2		0.2		2.9		0.2	J	0.2		0.3	
Chloride	mg/L	165		11300		12400		212		7740		8070		34		35		35		825		35	J	31		43	
Fluoride	mg/L	0.119		0.125		0.142		0.121		0.127		0.140		0.133		0.121		0.121		0.091	I	0.090	IJ	0.095	I	0.093	I
Sulfate	mg/L	19		1320		1490		9		835		871		22		25		25		19		50	J	66		57	
Total Ammonia	mg/L as N																										
Ammonium ion (NH_4^+)	mg/L																										
Unionized NH_3	mg/L																										
Nitrate/Nitrite	mg/L as N																										
TKN	mg/L																										
TN	mg/L																										
ortho-Phosphate	mg/L																										
Total Phosphorus (P)	mg/L																										
Alkalinity	mg/L	237		232		217		289		202	J	217	J	201		200		200		174		257	J	220		226	
Bicarbonate Alkalinity	mg/L as $CaCO_3$	237		232		217		289		202	J	217	J	210		200		200		174		1	UJ	220		226	
Sulfide	mg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
Total Dissolved Solids	mg/L	553		19300		20900		693		14700		15700		272		272		252		2200		410	J	340		344	
Salinity	*	0.49	J	20.38		21.39		0.6	J	13.65		14.05		0.25	J	0.26	J			1.58	J	1.01	J	0.3	J	0.32	J
Tritium	pCi/L (1σ)																										

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
* PSS-78 salinity is unitless.
Sample 030414-DUP1 is a duplicate of TPGW-2M.
Sample 031114-DUP1 is a duplicate of TPGW-7M.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
Q = Holding time exceeded.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-4. Summary of Groundwater Analytical Results from the March 2014 Sampling Event

		TPGW-9S		TPGW-9M		TPGW-9D		TPGW-10S		TPGW-10M		TPGW-10D		TPGW-11S		TPGW-11M		TPGW-11D		TPGW-12S		TPGW-12M		TPGW-12D	
Parameter	**Units**	03/10/2014		03/10/2014		03/10/2014		03/12/2014		03/12/2014		03/12/2014		03/12/2014		03/12/2014		03/12/2014		03/05/2014		03/05/2014		03/05/2014	
Temperature	°C	24.42		23.84		23.74		26.19		26.36		26.16		25.58		25.56		25.58		26.39		26.02		25.97	
pH	SU	6.72		6.76		6.95		7.32		7.33		7.00		6.98		6.67		6.81		6.48		6.64		7.09	
Dissolved Oxygen	mg/L	0.53		1.11		0.46		0.31		0.21		0.35		0.42		0.30		0.11		0.62		0.72		0.13	
Specific Conductance	µS/cm	594		596		625		52152		54497		66201		54319		56935		61402		44292		61622		64257	
Turbidity	NTU	0.15		2.01		0.10		0.30		0.40		0.37		0.49		0.23		0.22		0.17		0.01	J	0.01	J
Calcium	mg/L	117		128		112		434		448		564		500		549		591	J	481	J	565		596	
Magnesium	mg/L	2.7		3.03		3.47		1190		1200		1500		1210		1290		1370	J	979	J	1370		1480	
Potassium	mg/L	5.47		5.81		3.8		436		447		553		457		470		511	J	328	J	475		516	
Sodium	mg/L	12		13		15		11000		11300		13900		11500		12000		13400	J	8560	J	12600		13400	
Boron	mg/L	0.05		0.06		0.05		4.67		4.83		5.73		5.10		5.06		5.23		3.50		4.91		5.23	
Strontium	mg/L	0.97		1.07		1.13		8.08		8.49		10.60		8.66		9.52		10.40		7.33		10.00		10.60	
Bromide	mg/L	0.2		0.2		0.4		68.3		73.6		91.0		72.3		75.7		83.4	J	54.2	J	80.5		120.0	
Chloride	mg/L	20		22		27		19300		21100		25800		20500		21900		32800	J	16800	J	23200		25900	
Fluoride	mg/L	0.099	I	0.093	I	0.085	I	0.783		0.595		0.263	J	0.809		0.567		0.654	J	0.414	J	0.259	J-	0.250	J
Sulfate	mg/L	7		11		30		2740		2780		3570		2870		3160		3310	J	2180	J	3210		3600	
Total Ammonia	mg/L as N							0.382		0.391		0.811	J												
Ammonium ion (NH_4^+)	mg/L							0.49		0.50		1.04	J												
Unionized NH_3	mg/L							0.00592		0.00627		0.00604	J												
Nitrate/Nitrite	mg/L as N							0.0270	U	0.0270	U	0.0270	U												
TKN	mg/L							0.76		0.64		1.11													
TN	mg/L							0.79		0.67		1.14													
ortho-Phosphate	mg/L							0.0461	J	0.0202	J	0.0452	J												
Total Phosphorus (P)	mg/L							0.0022	UJ	0.0022	UJ	0.0039	IJ												
Alkalinity	mg/L	278		273		262		129		116		158		289		341		275	J	556	J	267	J	197	J
Bicarbonate Alkalinity	mg/L as $CaCO_3$	278		273		262		129		116		158		289		341		275	J	556	J	267	J	197	J
Sulfide	mg/L	1.28		1.00	U	1.00	U	4.32		1.00	U Q	3.84		11.20		6.72	Q	4.97	Q	19.40		4.09	Q	1.00	U Q
Total Dissolved Solids	mg/L	280		280		304		32900		36800		45000		35500		37400		42900		28900		44100		45300	
Salinity	*	0.29	J	0.29	J	0.3	J	34.29		36.03		44.94		35.92		37.88		41.26		28.55		41.44		43.44	
Tritium	pCi/L (1σ)																								

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
* PSS-78 salinity is unitless.
Sample 030414-DUP1 is a duplicate of TPGW-2M.
Sample 031114-DUP1 is a duplicate of TPGW-7M.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
Q = Holding time exceeded.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-4. Summary of Groundwater Analytical Results from the March 2014 Sampling Event

		TPGW-13S		TPGW-13M		TPGW-13D		TPGW-14S		TPGW-14M		TPGW-14D		030414-FB1		030514-FB1		031014-FB1		031114-FB1		031214-FB1	
Parameter	**Units**	03/05/2014		03/05/2014		03/05/2014		03/12/2014		03/12/2014		03/12/2014		03/04/2014		03/05/2014		03/10/2014		03/11/2014		03/12/2014	
Temperature	°C	29.47		29.50		29.43		25.82		25.56		26.08											
pH	SU	6.76		6.76		7.03		6.96		6.83		6.71											
Dissolved Oxygen	mg/L	0.30		0.45		0.13		0.30		0.25		0.42											
Specific Conductance	µS/cm	82533		78500		79151		56577		60817		73672											
Turbidity	NTU	0.01	J	0.02		0.19		0.23		0.25		0.34											
Calcium	mg/L	714		696		686		526		567		649		0.100	U	0.100	U	0.100	U	0.100	U	0	U
Magnesium	mg/L	2000		1850		1870		1310		1340		1660		0.0200	U	0.0200	U	0.0200	U	0.0200	U	0	U
Potassium	mg/L	710		651		658		474		509		632		0.190	U	0.190	U	0.190	U	0.190	U	0	U
Sodium	mg/L	17800		16600		17200		12200		13100		16000		0.310	U	0.310	U	0.310	U	0.310	U	0	U
Boron	mg/L	7.45		6.75		7.13		5.03		5.37		6.69		0.01		0.01		0.01		0.01		0	U
Strontium	mg/L	14.30		14.20		14.10		9.37		10.10		12.90		0.00		0.00		0.00		0.00		0	U
Bromide	mg/L	115.0		108.0		109.0		76.0		83.1		103.0		0.0130	U	0.0130	U	0.0130	U	0.0130	U	0.0	U
Chloride	mg/L	32900		31500		31400		20900		24100		29200		0.476	I	0.250	U	0.250	U	0.250	U	0	U
Fluoride	mg/L	0.339		0.196		0.210		0.514		0.431	J	0.397	J	0.0240	U	0.0240	U	0.0240	U	0.0240	U	0.024	U
Sulfate	mg/L	4680		4320		4220		3170		3340		4060		0.250	U	0.250	U	0.304	I	0.250	U	0	U
Total Ammonia	mg/L as N	2.540		1.820		1.100		0.647		1.160	J	1.050	J	0.0260	U	0.0260	U	0.0260	U	0.0260	U	0.0260	U
Ammonium ion (NH_4^+)	mg/L	3.25		2.33		1.40		0.83		1.49	J	1.35	J										
Unionized NH_3	mg/L	0.01370		0.00986		0.01100		0.00430		0.00562	J	0.00400	J										
Nitrate/Nitrite	mg/L as N	0.0335	I	0.0270	U	0.0391	I	0.0270	U	0.0270	U	0.0270	U	0.02700	U	0.02700	U	0.02700	U	0.02700	U	0.02700	U
TKN	mg/L	2.74		2.27		2.65		0.99		1.51		3.09		0.300	U	0.300	U	0.300	U	0.300	U	0.30	U
TN	mg/L	2.77		2.30		2.69		1.02		1.54		3.12		0.33		0.33		0.33		0.33		0.33	
ortho-Phosphate	mg/L	0.0533	J	0.0043	I J	0.0127	J	0.0434	J	0.0665	J	0.0563	J	0.00324	I	0.00413	I	0.00399	I	0.00179	I	0.00293	I
Total Phosphorus (P)	mg/L	0.0052	IJ	0.0075	I	0.0022	UJ	0.0022	UJ	0.0025	IJ	0.0044	IJ	0.00220	U	0.00220	U	0.00220	U	0.00220	U	0.00220	U
Alkalinity	mg/L	116	J	178	J	188	J	236		284		225		1.00	U	27.60		1.00	U	1.00	U	1	U
Bicarbonate Alkalinity	mg/L as $CaCO_3$	116	J	178	J	188	J	236		284		255		1.00	U	27.60		1.00	U	1.00	U	1	U
Sulfide	mg/L	5.71		1.00	U Q	1.00	U Q	4.74	Q	7.59	Q	4.26	Q	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
Total Dissolved Solids	mg/L	60300		55700		59100		36800		41400		51400		5	U	5	U	5	U	5	U	5	U
Salinity	*	57.81		54.54		55.07		37.6		40.81		50.8											
Tritium	pCi/L (1σ)																						

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
* PSS-78 salinity is unitless.
Sample 030414-DUP1 is a duplicate of TPGW-2M.
Sample 031114-DUP1 is a duplicate of TPGW-7M.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
Q = Holding time exceeded.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-5. Summary of Groundwater Analytical Results from the June 2013 Historical Well Sampling Event

Parameter	Units	TPGW-L3-18		TPGW-L3-58		TPGW-L5-18		TPGW-L5-58		TPGW-G21-18		061013-DUP1		TPGW-G21-58		TPGW-G28-18		TPGW-G28-58		TPGW-G35-18		TPGW-G35-58	
		6/7/2013		6/7/2013		6/7/2013		6/7/2013		6/10/2013		6/10/2013		6/10/2013		6/10/2013		6/10/2013		6/10/2013		6/10/2013	
Temperature	°C	26.39		27.97		27.13		27.75		25.02				25.16		25.57		25.19		24.59		24.87	
pH	SU	7.14		6.86		7.2		6.84		6.9				6.64		7.94		6.79		6.94		7.16	
Dissolved Oxygen	mg/L	0.4	J	0.23	J	1.23	J	0.29	J	0.56				0.36		0.28		0.31		0.35		0.32	
Specific Conductance	µS/cm	1179		79416		547		74968		518				17408		7850		39487		634		14447	
Turbidity	NTU	3.01		0.14		1.66		0.15		0.71				0.32		59.73		27.6		0.94		0.3	
Silica, dissolved	mg/L																						
Calcium	mg/L																						
Magnesium	mg/L																						
Potassium	mg/L																						
Sodium	mg/L	123		19500		41.2		18400		23.2		22.9		2820		1190		7460		26.8		2450	
Boron	mg/L																						
Strontium	mg/L																						
Bromide	mg/L																						
Chloride	mg/L	240		32700		78.4		30900		51.7		48		6250		2670		16000		48.4	J+	5070	
Fluoride	mg/L																						
Sulfate	mg/L																						
Total Ammonia	mg/L as N																						
Ammonium ion (NH_4^+)	mg/L																						
Unionized NH_3	mg/L																						
Nitrate/Nitrite	mg/L as N																						
TKN	mg/L																						
TN	mg/L																						
ortho-Phosphate	mg/L																						
Total Phosphorus (P)	mg/L																						
Alkalinity	mg/L																						
Bicarbonate Alkalinity	mg/L as $CaCO_3$																						
Sulfide	mg/L																						
Total Dissolved Solids	mg/L	627		50600		296		48500		268		264		12000		4460		24300		348		8300	
Salinity	*	0.58	J	55.34		0.26	J	51.78		0.25	J			10.24		4.34		25.15		0.31	J	8.37	
Tritium	pCi/L (1σ)																						

NOTES:

Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.

Text in blue is revised.

* PSS-78 salinity is unitless.

KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.

Table 3.1-6. Summary of Groundwater Analytical Results from the September 2013 Historical Well Sampling Event

		TPGW-L3-18		TPGW-L3-58		TPGW-L5-18		TPGW-L5-58		TPGW-G21-18		090913-DUP		TPGW-G21-58		TPGW-G28-18		TPGW-G28-58		TPGW-G35-18		TPGW-G35-58		090913-FB1		091013-FB1	
Parameter	**Units**	09/10/2013		09/10/2013		09/10/2013		09/10/2013		09/09/2013		09/09/2013		09/09/2013		09/09/2013		09/09/2013		09/09/2013		09/09/2013		09/09/2013		09/10/2013	
Temperature	°C	27.92		28.67		29.60		28.86		26.19				25.81		25.93		25.75		24.88		24.77					
pH	SU	7.37		6.89		7.26		6.87		7.28				6.71		8.25		6.84		7.23		7.17					
Dissolved Oxygen	mg/L	0.15		0.22		0.14		0.20		0.20	J			0.04	J	0.19	J	0.03	J	0.21	J	0.31	J				
Specific Conductance	µS/cm	704		79173		1727		75809		532				17131		5034		39083		592		17918					
Turbidity	NTU	2.53		0.06		0.72		0.07		1.42				0.53		19.45		10.00		0.27		0.22					
Silica, dissolved	mg/L																										
Calcium	mg/L	67.4		677		83.9		735		87.5		87.0		635		259		593		90.7		313		0.100	U	0.100	U
Magnesium	mg/L	7.69		1790		22.8		1810		3.82		3.80		221		70.0		807		5.59		342		0.0200	U	0.0200	U
Potassium	mg/L	2.49		671		9.30		671		4.54		4.43		25.7		14.5		198		9.42		102		0.190	U	0.190	U
Sodium	mg/L	66.3		16900		225		17100		23.9		23.5		2690		988		7140		21.3		3000		0.310	U	0.310	U
Boron	mg/L	0.0457	I	7.09		0.105		6.87		0.064		0.048	I	0.155	I	0.195	I	1.43		0.0655		1.53		0.01	U	0.01	U
Strontium	mg/L	0.644		13		0.88		15.2		0.771		0.769		6.52		2.35		7.17		0.858		4.59		0.001	U	0.001	U
Bromide	mg/L	0.379		117		1.57		108		0.224		0.214		21.6		7.57		45.4		0.315		21.7		0.0130	U	0.0130	U
Chloride	mg/L	134		34800		443		33300		46.6		45.1		6440		2210		15300		37.6		6490		0.250	U	0.250	U
Fluoride	mg/L	0.0923	I	0.299		0.0923	I	0.193		0.118		0.114		0.0870	I	0.0783	I	0.131		0.126		0.159		0.0240	U	0.0240	U
Sulfate	mg/L	2.11		4350		32.2		4080		10.5	J	8.48	J	216		173		1730		59.9		867		0.250	U	0.250	U
Total Ammonia	mg/L as N																							0.0260	U	0.0261	I
Ammonium ion (NH_4^+)	mg/L																										
Unionized NH_3	mg/L																										
Nitrate/Nitrite	mg/L as N																							0.00760	I	0.00540	U
TKN	mg/L																							0.366		0.255	
TN	mg/L																										
ortho-Phosphate	mg/L																							0.00140	U	0.00140	U
Total Phosphorus (P)	mg/L																							0.00220	U	0.00220	U
Alkalinity	mg/L	153		185		181		189		204		201		201		118		212		176		167		1.00	U	1.00	U
Bicarbonate Alkalinity	mg/L as $CaCO_3$	153		185		181		189		204		201		201		118		212		176		167		1.00	U	1.00	U
Sulfide	mg/L	1.12		1.67		1.12		1.00	U	1.15		1.00	U	1.00	U	1.28		1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
Total Dissolved Solids	mg/L	412		56600		890		52000		292		288		10900		4120		24100		324		10300					
Salinity	*	0.34	J	55.12		0.87	J	52.41		0.26	J			10.08		3.43		24.83		0.29	J	10.58					
Tritium	pCi/L (1σ)																										

NOTES:

Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.

* PSS-78 salinity is unitless.

Sample 090913-DUP1 is a duplicate of G21-18.

KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Unit
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-7. Summary of Groundwater Analytical Results from the December 2013 Historical Well Sampling Event

		TPGW-L3-18		TPGW-L3-58		TPGW-L5-18		TPGW-L5-58		TPGW-G21-18		TPGW-G21-58		TPGW-G28-18		TPGW-G28-58		TPGW-G35-18		120613-DUP		TPGW-G35-58		120513-FB1		120613-FB1	
Parameter	**Units**	12/05/2013		12/05/2013		12/05/2013		12/05/2013		12/06/2013		12/06/2013		12/06/2013		12/06/2013		12/06/2013		12/06/2013		12/06/2013		12/05/2013		12/06/2013	
Temperature	°C	27.16		27.58		27.28		27.85		25.22		24.86		25.04		24.99		24.67				24.54					
pH	SU	6.92		6.80		7.18		6.80		6.94		6.64		7.93		6.86		7.10				7.12					
Dissolved Oxygen	mg/L	0.44		0.31		0.29		0.32		0.64		0.42		0.37		0.83		0.36				0.32					
Specific Conductance	µS/cm	2298		78688		980		74021		579		17273		5610		38640		645				18389					
Turbidity	NTU	1.34		0.01	J	0.99		0.01	J	1.31		0.4		105.40		47.70		1.75				0.01					
Silica, dissolved	mg/L																										
Calcium	mg/L																										
Magnesium	mg/L																										
Potassium	mg/L																										
Sodium	mg/L	292.0		16900		93		15900		24.8		2880.0		941		7070		31		30.5		3150		0.310	U	0.310	U
Boron	mg/L																										
Strontium	mg/L																										
Bromide	mg/L																										
Chloride	mg/L	556		33000		189		30200		45.6		5540.0		1910		14900		56		60.4		6230		0.250	U	0.250	U
Fluoride	mg/L																										
Sulfate	mg/L																										
Total Ammonia	mg/L as N																										
Ammonium ion (NH_4^+)	mg/L																										
Unionized NH_3	mg/L																										
Nitrate/Nitrite	mg/L as N																										
TKN	mg/L																										
TN	mg/L																										
ortho-Phosphate	mg/L																										
Total Phosphorus (P)	mg/L																										
Alkalinity	mg/L																										
Bicarbonate Alkalinity	mg/L as																										
Sulfide	mg/L																										
Total Dissolved Solids	mg/L	940		57100		480		52700		308		9700		3140		24200		336		320		9600		5	U	5	U
Salinity	*	1.17	J	54.77		0.48	J	51.02		0.2	J	10.16		3.03		24.56		0.31	J			10.88					
Tritium	pCi/L (1σ)																										

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
* PSS-78 salinity is unitless.
Sample 120613-DUP1 is a duplicate of 120613-TPGW-G35-18.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimet
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
FB = Field blank.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-8. Summary of Groundwater Analytical Results from the March 2014 Historical Well Sampling Event

Parameter	Units	TPGW-L3-18 03/07/2014		TPGW-L3-58 03/07/2014		TPGW-L5-18 03/07/2014		TPGW-L5-58 03/07/2014		TPGW-G21-18 03/06/2014		TPGW-G21-58 03/06/2014		TPGW-G28-18 03/06/2014		TPGW-G28-58 03/06/2014		TPGW-G35-18 03/06/2014		030614-DUP 03/06/2014		TPGW-G35-58 03/06/2014		030614-FB1 03/06/2014		030714-FB1 03/07/2014	
Temperature	°C	26.19		26.86		24.50		25.54		24.61		24.37		25.26		24.90		25.21				24.62					
pH	SU	7.24		6.95		7.36		6.87		7.40		6.7		9.46		6.92		7.56				7.10					
Dissolved Oxygen	mg/L	0.47		0.56		0.61		0.43		0.88		0.4		4.58		0.45		0.77				0.35					
Specific Conductance	µS/cm	837		77142		799		72566		538		16305		1673		38299		755				18096					
Turbidity	NTU	0.81		0.12		0.75		0.07		0.51		0.09		0.85		81.31		1.10				0.25					
Silica, dissolved	mg/L																							0.05	U	0.05	U
Calcium	mg/L	79.4		671		80.8		669		80.5		581.0		98		587		69		67.9		307		0.100	U	0.100	U
Magnesium	mg/L	10.80		1790		9.5		1660		3.80		180.00		22		802.0		8		7.52		340		0.0200	U	0.0200	U
Potassium	mg/L	3.57		667		3.30		594		4.53		29.00		8.3		208.0		13		12.30		114		0.190	U	0.190	U
Sodium	mg/L	76.0		17100		68		16200	J	23.6		2700.0		350		7540		66		65.2		3350		0.310	U	0.310	U
Boron	mg/L	0.0586		6.99		0.0643		6.06		0.0409	I	0.151		0.139		1.53		0.0857		0.0846		1.66		0.01	U	0.01	U
Strontium	mg/L	0.767		13.5		0.791		15.1		0.833		7.27		1.1		8.15		0.957		0.95		5.21		0.001	U	0.001	U
Bromide	mg/L	0.346		109		0.36		103		0.189		20.500		2.4		49.50		0.6		0.585		20.9		0.0130	U	0.0130	U
Chloride	mg/L	141		31700		122		28800		42.9		5810.0		676		13800		116		117.0		6020		0.250	U	0.364	I
Fluoride	mg/L	0.0915	I	0.317	J	0.0797	I	0.180	J-	0.121		0.091	I	0.0451	I	0.1420		0.138		0.142		0.162		0.0240	U	0.0240	U
Sulfate	mg/L	20.60		4550		10.3	J	3970		14.7		209.00		104		1760		76		76.7		925		0.338	I	1.110	
Total Ammonia	mg/L as N																							0.0260	U	0.0260	U
Ammonium ion (NH_4^+)	mg/L																										
Unionized NH_3	mg/L																										
Nitrate/Nitrite	mg/L as N																							0.03780	I	0.05550	
TKN	mg/L																							0.300	U	0.300	U
TN	mg/L																							0.3378		0.3555	
ortho-Phosphate	mg/L																							0.00190	I	0.00140	U
Total Phosphorus (P)	mg/L																							0.00220	U	0.00220	U
Alkalinity	mg/L	187		183		210		192		196		203		76		217		115		118		170		1.00	U	1.00	U
Sulfide	mg/L	1.00	U Q	1.00	U Q	1.84		1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
Total Dissolved Solids	mg/L	440		55300		368		50800		276		10400		960		23700		368		348		10100		5	U	5	U
Salinity	*	0.41	J	53.55		0.39	J	49.93		0.26	J	9.56		0.84	J	24.33		0.37	J			10.69					
Tritium	pCi/L (1σ)																										

NOTES:

Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
* PSS-78 salinity is unitless.
Sample 030614-DUP1 is a duplicate of G35-18.
Sample 031114-DUP1 is a duplicate of TPGW-7M.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
Q = Holding time exceeded.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.1-9. Range of Ion and Nutrient Concentrations in Groundwater

Parameter	Units	Marine								Fresh								TPGW-13							
		Post-Uprate				Pre-Uprate				Post-Uprate				Pre-Uprate				Post-Uprate				Pre-Uprate			
		Min	Max	Average	Std Dev	Min	Max	Average	Std Dev	Min	Max	Average	Std Dev	Min	Max	Average	Std Dev	Min	Max	Average	Std Dev	Min	Max	Average	Std Dev
Temperature	°C	23.80	28.86	26.08	1.02	18.32	29.40	25.89	1.66	23.40	29.60	24.93	1.03	22.05	30.12	24.82	1.14	28.75	29.58	29.30	0.30	28.83	30.47	29.73	0.44
pH	SU	6.48	7.53	6.87	0.20	6.45	7.64	7.01	0.21	6.64	11.86	7.27	1.04	6.74	12.10	7.57	1.15	6.73	7.03	6.84	0.08	6.52	7.25	7.01	0.15
Dissolved Oxygen	mg/L	0.03	1.93	0.42	0.33	0.05	1.67	0.25	0.20	0.03	4.58	0.53	0.54	0.05	1.29	0.26	0.22	0.02	1.10	0.33	0.30	0.06	1.08	0.26	0.30
Specific Conductance	µS/cm	22635	79416	57502	15860	19640	84800	56598	16703	518	39487	4645	9325	429	41949	4462	8946	78333	83887	80743	2011	70180	90261	82289	5029
Turbidity	NTU	0.00	1.42	0.23	0.23	0.00	7.40	0.80	1.03	0.00	105.40	4.92	17.03	0.00	31.92	2.64	4.88	0.01	1.07	0.16	0.30	0.00	1.55	0.51	0.45
Calcium	mg/L	411.00	1080.00	597.86	99.41	400.00	870.00	597.40	88.82	67.40	635.00	171.50	156.26	48.00	590.00	165.34	134.37	686.00	758.00	711.50	26.50	690.00	790.00	746.19	32.01
Magnesium	mg/L	403.00	1810.00	1295.64	410.84	420.00	2200.00	1438.18	495.24	0.02	807.00	75.26	188.78	0.02	910.00	66.79	181.31	1720.00	2010.00	1883.33	108.38	2000.00	2500.00	2233.33	115.47
Potassium	mg/L	101.00	671.00	456.53	175.00	92.00	1400.00	446.03	192.77	2.49	208.00	22.79	47.63	2.60	440.00	23.29	55.54	651.00	753.00	692.83	37.57	600.00	800.00	709.52	52.96
Sodium	mg/L	3790.00	18900.00	11840.52	3828.98	3800.00	21000.00	11660.42	3920.32	8.05	7540.00	619.95	1551.72	6.00	8300.00	642.26	1593.12	16500.00	18100.00	17083.33	547.45	16000.00	20000.00	17857.14	1195.23
Boron	mg/L	0.79	7.09	4.61	1.95	0.58	7.50	4.38	1.94	0.03	1.66	0.22	0.45	0.03	1.60	0.19	0.40	6.75	7.55	7.13	0.32	6.60	8.70	7.51	0.61
Strontium	mg/L	6.09	15.20	10.31	2.36	6.30	15.00	10.23	2.36	0.58	8.15	1.87	2.06	0.53	7.70	1.76	1.79	13.40	14.30	14.02	0.33	14.00	16.00	14.43	0.60
Bromide	mg/L	26.50	120.00	78.24	25.30	23.00	180.00	76.60	29.66	0.15	49.50	5.16	11.68	0.03	62.00	4.26	11.00	108.00	122.00	113.83	5.12	49.00	130.00	108.57	16.91
Chloride	mg/L	7740	34800	23268	7254	7100	34000	22247	7492	16	16000	1540	3592	10	15000	1358	3279	31400	39800	34925	2604	26000	38000	34476	2750
Fluoride	mg/L	0.12	0.81	0.31	0.19	0.01	3.30	0.44	0.55	0.05	0.16	0.11	0.02	0.02	0.65	0.13	0.11	0.19	0.35	0.25	0.07	0.02	3.60	0.80	1.04
Sulfate	mg/L	825.00	4550.00	2998.33	1035.81	680	4500.00	2734.61	1005.28	2.11	1760.0	171.7	414.1	0.92	1800	156	369	4120	4820	4457	278	3700.0	5000.0	4257.1	395.7
Total Ammonia	mg/L as N	0.298	2.080	1.156	0.550	0.220	2.000	1.097	0.600	NA	NA	NA	NA	NA	NA	NA	NA	1.100	2.590	1.872	0.593	1.300	2.800	1.844	0.482
Ammonium ion (NH_4^+)	mg/L	0.378	2.670	1.478	0.705	0.280	2.600	1.378	0.794	NA	NA	NA	NA	NA	NA	NA	NA	1.400	3.310	2.392	0.761	1.656	3.600	2.336	0.627
Unionized NH_3	mg/L	0.003	0.015	0.008	0.003	0.003	0.025	0.010	0.006	NA	NA	NA	NA	NA	NA	NA	NA	0.010	0.014	0.012	0.002	0.014	0.184	0.039	0.055
Nitrate/Nitrite	mg/L as N	0.005	0.128	0.028	0.023	0.005	1.200	0.093	0.239	NA	NA	NA	NA	NA	NA	NA	NA	0.027	0.089	0.046	0.022	0.012	0.340	0.104	0.110
Total Kjedahl Nitrogen	mg/L	0.640	3.160	1.923	0.852	0.260	2.700	1.425	0.793	NA	NA	NA	NA	NA	NA	NA	NA	2.270	4.270	2.995	0.684	1.500	3.500	2.333	0.608
Total Nitrogen	mg/L	0.667	3.187	1.951	0.849	0.260	2.700	1.442	0.788	NA	NA	NA	NA	NA	NA	NA	NA	2.297	4.310	3.041	0.688	1.500	3.800	2.433	0.680
ortho-Phosphate	mg/L	0.00	0.08	0.04	0.02	0.014	0.10	0.04	0.02	NA	NA	NA	NA	NA	NA	NA	NA	0.00	0.05	0.02	0.02	0.02	0.04	0.03	0.00
Total Phosphorus (P)	mg/L	0.00	0.06	0.02	0.02	0.015	0.08	0.03	0.01	NA	NA	NA	NA	NA	NA	NA	NA	0.00	0.04	0.02	0.02	0.04	0.07	0.05	0.01
Alkalinity	mg/L	103.00	562.00	234.33	89.89	48	550.00	209.68	73.09	75.50	332.00	216.41	54.45	30.00	580	224.73	83.32	116	190	174	29	54.00	220.00	165.43	36.07
Bicarbonate Alkalinity	mg/L as $CaCO_3$	103.00	562.00	234.84	89.92	48.0	550.00	209.68	73.09	1.00	332.00	205.71	71.76	1.00	360	200.17	72.78	116	190	174	29	54.00	220.0	165.4	36.1
Sulfide	mg/L	1.00	22.00	4.04	5.04	1.0	22.00	3.22	4.03	1.00	1.84	1.08	0.16	1.00	8.30	1.11	0.73	1.00	9.45	3.19	3.60	1.00	25.00	7.14	9.13
Total Dissolved Solids	mg/L	12800	57100	38428	11929	12000	64000	38208	12850	236	24300	2746	5756	160	26000	2558	5486	54000	60300	57000	2180	56000	75000	60857	5842
Salinity (PSS-78)	*	13.65	55.34	38.61	11.70	11.68	59.82	37.96	12.31	0.20	25.15	2.75	5.86	0.21	26.93	2.62	5.63	54.43	58.93	56.37	1.63	47.90	64.20	57.63	4.07
Tritium	pCi/L (1σ)																								

NOTES:

* PSS-78 salinity is unitless.

Marine wells include: TPGW-1S, -1M, -1D, -2S, -2M, -2D, -3S, -3M, -3D, -4M, -4D, -5M, -5D, -6M, -6D, -10S, -10M, -10D, -11S, -11M, -11D, -12S, -12M, -12D, -14S, -14M, -14D

Fresh wells include: TPGW-4S, -5S, -6S, -7S, -7M, -7D, -8S, -8M, -8D, -9S, -9M, -9D, -L3-18, -L5-18, -G21-18, -G21-58, -G28-18, -G28-58, -G35-18, -G35-58

KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
Max = Maximum.
mg/L = Milligram(s) per liter.
Min = Minimum.
N = Nitrogen.
NA = Not available.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.

Table 3.2-1. Summary of Surface Water Analytical Results from the June 2013 Sampling Event

		TPBBSW-3B		TPBBSW-4B		TPBBSW-5B		061313-Dup1		TPSWC-1T		TPSWC-1B		TPSWC-2T		TPSWC-2B		TPSWC-3T		TPSWC-3B		TPSWC-4T		TPSWC-4B		061113-DUP1		TPSWC-5T		TPSWC-5B	
Parameter	**Units**	6/13/2013		6/13/2013		6/13/2013		6/13/2013		6/7/2013		6/7/2013		6/7/2013		6/7/2013		6/7/2013		6/7/2013		6/11/2013		6/11/2013		6/11/2013		6/11/2013		6/11/2013	
Temperature	°C	28.52		29.14		29.47				29.49		26.7		28.6		28.08		28.35		28.46		27.11		27.16				29.83		27.19	
pH	SU	7.85		7.68		7.79				7.77		7.14		7.68		7.56		7.6		7.59		6.9		6.92				7.83		7.49	
Dissolved Oxygen	mg/L	4.21		5.32		5.22				6.71	J	1.12	J	5.42	J	5.04	J	6	J	7.1	J	2.1		0.19				6.67		2.43	
Specific Conductance	µS/cm	53783		52173		46171				402		442		582		570		556		555		42969		48000				50933	J	55524	
Turbidity	NTU	1.94		1.24		0.79				0.65		1.34		0.69		1.11		0.59		0.51		1.58		8.23				0.73		6.73	
Silica, dissolved	mg/L																														
Calcium	mg/L																														
Magnesium	mg/L																														
Potassium	mg/L																														
Sodium	mg/L	10800		10600		8610		8900		30.9		32.6		54.8		55.4		50.4		51.4		8460		9560		9570		11500		10300	
Boron	mg/L																														
Strontium	mg/L																														
Bromide	mg/L																														
Chloride	mg/L	20900		21300		17000		17900		53.9		55.2		106		106		95.6		95.4		16300		19500		18700		22900	J	21500	
Fluoride	mg/L																														
Sulfate	mg/L																														
Total Ammonia	mg/L as N																														
Ammonium ion (NH_4^+)	mg/L																														
Unionized NH_3	mg/L																														
Nitrate/Nitrite	mg/L as N																														
TKN	mg/L																														
TN	mg/L																														
ortho-Phosphate	mg/L																														
Total Phosphorus (P)	mg/L																														
Alkalinity	mg/L																														
Bicarbonate Alkalinity	mg/L as $CaCO_3$																														
Sulfide	mg/L																														
Total Dissolved Solids	mg/L																														
Salinity	*	35.4		34.2		29.8				0.2	J	0.2	J	0.3	J	0.3	J	0.3	J	0.3	J	27.6		31.3				33.3	J	36.8	
Tritium	pCi/L (1σ)																														

NOTES:

Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.

Text in blue is revised.

* PSS-78 salinity is unitless.
061113-DUP1 is a field duplicate of sample 061113-TPSWC-4B.
061313-DUP1 is a field duplicate of sample 061313-TPBBSW-5B.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.2-1. Summary of Surface Water Analytical Results from the June 2013 Sampling Event

		TPSWC-6T		TPSWC-6B		TPSWID-1T		TPSWID-1B		TPSWID-2T		TPSWID-2B		TPSWID-3T		TPSWID-3B		TPSWCCS-1B		TPSWCCS-2B		TPSWCCS-3B		TPSWCCS-4T		TPSWCCS-5T		TPSWCCS-7B	
Parameter	**Units**	6/5/2013		6/5/2013		6/3/2013		6/3/2013		6/3/2013		6/3/2013		6/3/2013		6/3/2013		6/3/2013		6/11/2013		6/3/2013		6/3/2013		6/3/2013		6/3/2013	
Temperature	°C	25.23		25.18		36.14		29.14		29.35		28.13		28.72		27.59		40.33		36.51		33.55		31.51		32.47		37.76	
pH	SU	7.23		7.25		8.06		7.85		7.85		7.01		7.64		7.72		8.87		8.56		8.69		8.69		8.67		8.84	
Dissolved Oxygen	mg/L	2.62		2.17		5.79		5.17		6.25		0.43		4.74		5.02		4.28		8.45		4.86		5.55		5.14		6.38	
Specific Conductance	µS/cm	808		818		4088		6510		3293		13700		3644		4006		75276		75280		74015		74816		74451		75876	
Turbidity	NTU	0.51		0.41		0.74		0.9		0.41		20.55		0.51		0.39		32.12		28.15		39.69		39.85		31.7		32.17	
Silica, dissolved	mg/L																												
Calcium	mg/L																												
Magnesium	mg/L																												
Potassium	mg/L																												
Sodium	mg/L	50		51.2		588		997		467		2300		497		571		15400		15700		15300		15500		15300		15300	
Boron	mg/L																												
Strontium	mg/L																												
Bromide	mg/L																												
Chloride	mg/L	83.2		89.5		1210		1920		885		4300		969		1120		31000		33400		30200		32100		29800		30600	
Fluoride	mg/L																												
Sulfate	mg/L																												
Total Ammonia	mg/L as N																												
Ammonium ion (NH_4^+)	mg/L																												
Unionized NH_3	mg/L																												
Nitrate/Nitrite	mg/L as N																												
TKN	mg/L																												
TN	mg/L																												
ortho-Phosphate	mg/L																												
Total Phosphorus (P)	mg/L																												
Alkalinity	mg/L																												
Bicarbonate Alkalinity	mg/L as $CaCO_3$																												
Sulfide	mg/L																												
Total Dissolved Solids	mg/L																												
Salinity	*	0.4	J	0.4	J	2.2		3.5		1.7	J	7.9		1.9	J	2.1		51.4		51.6		50.8		51.5		51.2		51.4	
Tritium	pCi/L (1σ)																												

NOTES:

Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.

Text in blue is revised.

* PSS-78 salinity is unitless.

061113-DUP1 is a field duplicate of sample 061113-TPSWC-4B.

061313-DUP1 is a field duplicate of sample 061313-TPBBSW-5B.

KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.2-1. Summary of Surface Water Analytical Results from the June 2013 Sampling Event

		060313-FB1		060513-FB1		060713-FB1		061113-EB1		061313-FB1	
Parameter	**Units**	**6/3/2013**		**6/5/2013**		**6/7/2013**		**6/11/2013**		**6/13/2013**	
Temperature	°C										
pH	SU										
Dissolved Oxygen	mg/L										
Specific Conductance	µS/cm										
Turbidity	NTU										
Silica, dissolved	mg/L										
Calcium	mg/L										
Magnesium	mg/L										
Potassium	mg/L										
Sodium	mg/L	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U
Boron	mg/L										
Strontium	mg/L										
Bromide	mg/L										
Chloride	mg/L	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
Fluoride	mg/L										
Sulfate	mg/L										
Total Ammonia	mg/L as N			0.026	U						
Ammonium ion (NH_4^+)	mg/L										
Unionized NH_3	mg/L										
Nitrate/Nitrite	mg/L as N			0.005	U						
TKN	mg/L			0.236							
TN	mg/L										
ortho-Phosphate	mg/L			0.001	U						
Total Phosphorus (P)	mg/L			0.002	U						
Alkalinity	mg/L										
Bicarbonate Alkalinity	mg/L as $CaCO_3$										
Sulfide	mg/L										
Total Dissolved Solids	mg/L			5	U			5	U		
Salinity	*										
Tritium	pCi/L (1σ)										

NOTES:

Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.

Text in blue is revised.

* PSS-78 salinity is unitless.
061113-DUP1 is a field duplicate of sample 061113-TPSWC-4B.
061313-DUP1 is a field duplicate of sample 061313-TPBBSW-5B.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.2-2. Summary of Surface Water Analytical Results from the September 2013 Sampling Event

Parameter	Units	TPBBSW-3B 09/12/2013		TPBBSW-4B 09/12/2013		TPBBSW-5B 09/12/2013		TPSWC-1T 09/10/2013		TPSWC-1B 09/10/2013		091013-DUP 09/10/2013		TPSWC-2T 09/10/2013		TPSWC-2B 09/10/2013		TPSWC-3T 09/10/2013		TPSWC-3B 09/10/2013		TPSWC-4T 09/11/2013		TPSWC-4B 09/11/2013		TPSWC-5T 09/11/2013		TPSWC-5B 09/11/2013	
Temperature	°C	29.10		28.42		28.29		28.71		28.54				28.83		29.00		29.93		29.56		29.06		29.92		30.60		30.71	
pH	SU	8.13		8.04		7.88		7.48		7.32				7.73		7.54		7.78		7.68		7.48		7.63		7.94		7.76	
Dissolved Oxygen	mg/L	5.30		5.29		4.41		3.47		1.65				4.77		2.74		5.02		4.24		2.86		3.23		5.14		4.04	
Specific Conductance	µS/cm	49303	J	52612	J	50460	J	576		593				578		588		608		614		23204	J	47521	J	52069	J	53157	J
Turbidity	NTU	0.92		0.77		1.10		0.54		1.17				1.19		0.84		0.63		0.52		2.40		9.43		0.56		1.01	
Silica, dissolved	mg/L																												
Calcium	mg/L	410		408		396		54.3		53.6		53.9		50.2		51.7		52.5		52.2		251		394		415		443	
Magnesium	mg/L	1110	J-	1110	J-	1070	J-	6.93		6.76		6.80		6.43		6.62		6.26		6.09		420		954		1120		1190	
Potassium	mg/L	413		436		427		2.39		2.34		2.34		2.59		2.81		2.73		2.62		169		386		430		437	
Sodium	mg/L	9610		10100		9710		50.5		52.0		52.4		53.5		54.0		56.2		55.7		4000		9100		10200		10300	
Boron	mg/L	4.32		4.82		4.49		0.0428	I	0.0425	I	0.043	I	0.037	I	0.0395	I	0.0376	I	0.0362	I	1.74		3.96		4.52		4.51	
Strontium	mg/L	7.01		7.24		7.14		0.518		0.512		0.514		0.536		0.567		0.555		0.544		3.92		6.55		7.1		7.42	
Bromide	mg/L	68.3	J	70.8	J	70.1	J	0.178		0.207		0.208		0.207		0.227		0.265		0.279		28.2	J	65.3	J	70.6	J	72.5	J
Chloride	mg/L	19900	J	21200	J	20600	J	113		119		120		117		118		122		116		9050	J	18000	J	20900	J	21500	J
Fluoride	mg/L	0.856	J	0.889	J	0.893	J	0.0636	I	0.0664	I	0.0741	I	0.0773	I	0.0786	I	0.0760	I	0.0744	I	0.345	J	0.757	J	0.835	J	0.807	J
Sulfate	mg/L	2580	J	2730	J	2620	J	1.16		1.03		1.11		1.42		0.713		4.71		3.11		1040	J	2310	J	2670	J	2750	J
Total Ammonia	mg/L as N	0.0426	I J	0.0415	I J	0.0408	I J	0.174	J	0.233	J	0.230		0.154	J	0.166	J	0.131	J	0.132	J	0.240		0.0780		0.0361	I	0.0260	U
Ammonium ion (NH_4^+)	mg/L	0.0497	J	0.0494	J	0.04975		0.219	J	0.295	J			0.190		0.208		0.161		0.164		0.302		0.0970		0.0433		0.0300	U
Unionized NH_3	mg/L	0.00480	J	0.00370	J	0.00271		0.00460	J	0.00424	J			0.00718		0.00512		0.00733		0.00578		0.00650		0.00313		0.00299		0	U
Nitrate/Nitrite	mg/L as N	0.00849	I	0.00540	U	0.00540	U	0.0200	J+	0.0206	J+	0.0112	J	0.00827	I J+	0.0109	J+	0.0125	J+	0.0315	J+	0.0267	J+	0.0102	J+	0.0176	J+	0.00600	I J+
TKN	mg/L	1.28	J	0.935	J	0.990	J	1.21	J	2.92		1.29		1.33	J	1.29	J	1.16	J	1.15	J	1.02		0.849		0.549		0.743	J
TN	mg/L	1.29	J	0.94	J	1.00	J	1.23	J	2.94	J			1.34	J	1.30	J	1.17	J	1.18	J	1.05	J	0.86	J	0.57	J	0.75	J
ortho-Phosphate	mg/L	0.00140	U	0.00140	U	0.00140	U	0.00140	U	0.00140	U	0.00140	U	0.00140	U	0.00140	U	0.00140	U	0.00140	U	0.00140	U	0.00140	U	0.00140	U	0.00140	U
Total Phosphorus (P)	mg/L	0.00220	U	0.00220	U	0.00440	U	0.00315	I J-	0.00831	I J-	0.00451	I	0.00289	I J-	0.00220	U J-	0.00220	U J-	0.00220	U J-	0.00220	U J-	0.00220	U J-	0.00220	U J-	0.00220	U J-
Alkalinity	mg/L	135	J	124	J	129	J	118		118		118		109		114		118		119		240	J	151	J	130	J	143	J
Bicarbonate Alkalinity	mg/L as $CaCO_3$	135	J	124	J	129	J	118		118		118		109		114		118		119		240	J	151	J	130	J	143	J
Sulfide	mg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
Total Dissolved Solids	mg/L																												
Salinity	*	32.1	J	34.6	J	33.0	J	0.3	J	0.3	J			0.3	J	0.3	J	0.3	J	0.3	J	14.0	J	30.8	J	34.1	J	34.9	J
Tritium	pCi/L																												

NOTES:

Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.

* PSS-78 salinity is unitless.

Sample 091013-DUP is a duplicate of TPSWC-1B.

Sample 091113-DUP2 is a duplicate of TPSWC-5B.

KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.2-2. Summary of Surface Water Analytical Results from the September 2013 Sampling Event

		091113-DUP2		TPSWC-6T		TPSWC-6B		TPSWID-1T		TPSWID-1B		TPSWID-2T		TPSWID-2B		TPSWID-3T		TPSWID-3B		TPSWCCS-1B		TPSWCCS-2B		TPSWCCS-3B		TPSWCCS-4T		TPSWCCS-5T	
Parameter	**Units**	**09/11/2013**		**09/09/2013**		**09/09/2013**		**09/05/2013**		**09/05/2013**		**09/05/2013**		**09/05/2013**		**09/05/2013**		**09/05/2013**		**09/05/2013**		**09/06/2013**		**09/05/2013**		**09/05/2013**		**09/05/2013**	
Temperature	°C			25.82		25.83		31.89		30.53		32.30		29.00		31.59		30.01		39.56		34.86		34.35		33.58		33.09	
pH	SU			7.48		7.38		7.44		7.35		7.44		6.71		7.51		7.03		8.53		8.76		8.49		8.68		8.64	
Dissolved Oxygen	mg/L			1.49	J	0.94	J	5.52		4.58		5.77		0.42		5.86		1.36		4.68		4.92		6.07		6.72		5.77	
Specific Conductance	µS/cm			750		758		3570		3565		3067		5929		2523		2520		88287	J	88270	J	84330	J	88135	J	87241	J
Turbidity	NTU			0.25		0.77		0.60		1.65		0.60		16.17		0.38		0.33		81.66		78.94		76.18		76.24		79.45	
Silica, dissolved	mg/L																			2.62	J-	2.66		2.76	J-	2.69	J-	2.61	J-
Calcium	mg/L	460		88.5		86.3		109		107		121		195		100		120		783	J	791	J	778		823		830	J
Magnesium	mg/L	1130		8.26		8.75		63.1		57.3		49.0		94.8		33.0		38.6		1920	J-	1930	J-	1920		2050		2090	J
Potassium	mg/L	452		9.40		9.47		20.3		20.8		16.3		29.5		14.5		13.8		860	J+	855	J+	769		826		802	J
Sodium	mg/L	10400		48.3		54.3		485		491		406		835		331		323		18600	J	18600	J	17200		18200		18200	J
Boron	mg/L	4.51		0.0722		0.073		0.238		0.243		0.164		0.268		0.133		0.129		9.11		9.22		8.32		8.73		8.43	
Strontium	mg/L	7.42		0.943		0.939		1.2		1.21		1.23		2.15		1.21		1.18		16.5		16.4		15.4		16.4		15.8	
Bromide	mg/L	72.6		0.475		0.513		3.13		3.17		2.71		6.09		2.18		2.17		132	J	133	J	127	J	139	J	136	J
Chloride	mg/L	21600		82.6		102		1000		1000		837		1760		676		660		37200	J	40100	J	37700	J	40200	J	38600	J
Fluoride	mg/L	0.807		0.121		0.113		0.129		0.133		0.121		0.143		0.108		0.119		0.739	J-	0.729	J	0.720	J-	0.732	J-	0.739	J
Sulfate	mg/L	2750		53.0		48.5		93.3		93.0		73.8		156		56.9		56.2		5220	J	5090	J	4990	J	5330	J	5300	J
Total Ammonia	mg/L as N	0.0260	U	0.0879		0.0793		0.0931		0.113		0.139		0.435		0.146		0.277		0.0907	J+	0.109	J	0.0952		0.0956		0.0781	
Ammonium ion (NH_4^+)	mg/L			0.111		0.101		0.117		0.143		0.174		0.557		0.182		0.353		0.0770	J+	0.0853	J	0.0918		0.0824		0.0700	
Unionized NH_3	mg/L			0.00191		0.00137		0.00278		0.00252		0.00427		0.00203		0.00500		0.00288		0.0374	J+	0.0518	J	0.0289		0.0382		0.0287	
Nitrate/Nitrite	mg/L as N	0.00753	I	0.0291	J+	0.0289	J+	0.0270	U	0.0270	U	0.0270	U	0.0270	U	0.0421	I	0.0297	I	0.0270	U	0.0270	U	0.0270	U	0.0270	U	0.0400	I
TKN	mg/L	2.39	J	0.591	J	0.512	J	0.819		0.890		0.908		1.19		0.767		0.871		14.9		17.7		14.6		14.6		14.8	
TN	mg/L			0.62	J	0.54	J	0.85		0.92		0.94		1.22		0.81		0.90		14.93		17.73		14.63		14.63		14.84	
ortho-Phosphate	mg/L	0.00140	U	0.00140	U	0.00140	U	0.00140	U	0.00140	U	0.00140	U	0.00140	U	0.00140	U	0.00140	U	0.00652	I	0.0162		0.00140	U	0.00748	I	0.00811	I
Total Phosphorus (P)	mg/L	0.00220	U	0.00220	U J-	0.00220	U J-	0.00361	I	0.00334	I	0.00258	I	0.0101		0.00220	U	0.00277	I	0.0524		0.0460		0.0285		0.0429		0.0625	
Alkalinity	mg/L	142		192		194		247		251		214		312		206		223		124	J	128	J	132	J	127	J	127	J
Bicarbonate Alkalinity	mg/L as $CaCO_3$	142		192		194		247		251		214		312		206		223		76.5	J	39.0	J	70.8	J	28.4	J	27.4	J
Sulfide	mg/L	1.00	U	1.00	U	1.00	U	1.25		1.07		1.00	U	2.08		1.00	U	1.15		1.00	U	1.00	U	1.00	U	1.00	U	1.38	
Total Dissolved Solids	mg/L																												
Salinity	*			0.4	J	0.4	J	1.9	J	1.9	J	1.6	J	3.2		1.3	J	1.3	J	61.9	J	62.2	J	59.0	J	62.2	J	61.5	J
Tritium	pCi/L																												

NOTES:

Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.

* PSS-78 salinity is unitless.

Sample 091013-DUP is a duplicate of TPSWC-1B.

Sample 091113-DUP2 is a duplicate of TPSWC-5B.

KEY:

°C = Degrees Celsius.

µS/cm = MicroSiemen(s) per centimeter.

σ = sigma (Standard Deviation).

$CaCO_3$ = Calcium carbonate.

DUP = Duplicate.

EB = Equipment blank.

FB = Field blank.

I = Value between the MDL and PQL.

J = Estimated (+/- indicate bias).

mg/L = Milligram(s) per liter.

N = Nitrogen.

NH_3 = Ammonia.

NH_4^+ = Ammonium ion.

NTU = Nephelometric Turbidity Units(s).

pCi/L = PicoCuries per liter.

SU = Standard Unit(s).

TKN = Total Kjeldahl nitrogen.

TN = Total nitrogen.

TPGW = Turkey Point Groundwater.

U = Analyzed for but not detected at the reported value.

Table 3.2-2. Summary of Surface Water Analytical Results from the September 2013 Sampling Event

		TPSWCCS-7B		090513-FB1		090613-EB1		090913-FB1		091013-FB1		091113-FB1		091213-FB1	
Parameter	**Units**	09/05/2013		09/05/2013		09/06/2013		09/09/2013		09/10/2013		09/11/2013		09/12/2013	
Temperature	°C	36.97													
pH	SU	8.55													
Dissolved Oxygen	mg/L	5.45													
Specific Conductance	µS/cm	88914	J												
Turbidity	NTU	83.28													
Silica, dissolved	mg/L	2.53	J-	0.0500	U	0.0500	U								
Calcium	mg/L	830	J	0.100	U	0.100	U	0.100	U	0.100	U	0.100	U	0.100	U
Magnesium	mg/L	2050	J	0.0200	U	0.0267	I	0.0200	U	0.0200	U	0.0200	U	0.0200	U
Potassium	mg/L	817	J	0.190	U	0.190	U	0.190	U	0.190	U	0.190	U	0.190	U
Sodium	mg/L	18600	J	0.310	U	0.310	U	0.310	U	0.310	U	0.310	U	0.310	U
Boron	mg/L	8.90		0.0	U	0.01	U	0.010	U	0.01	U	0.01	U	0.01	U
Strontium	mg/L	16.2		0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Bromide	mg/L	138	J	0.0130	U	0.0130	U	0.0130	U	0.0130	U	0.0130	U	0.0130	U
Chloride	mg/L	39000	J	0.250	U	0.250	U	0.250	U	0.250	U	0.250	U	0.250	U
Fluoride	mg/L	0.742	J-	0.0240	U	0.0240	U	0.0240	U	0.0240	U	0.179		0.0240	U
Sulfate	mg/L	5360	J	0.250	U	0.250	U	0.250	U	0.250	U	0.250	U	0.250	U
Total Ammonia	mg/L as N	0.0878		0.0260	U	0.0314	I	0.0260	U	0.0261	I			0.0262	I
Ammonium ion (NH_4^+)	mg/L	0.0776												0.0319	
Unionized NH_3	mg/L	0.0334												0.00164	
Nitrate/Nitrite	mg/L as N	0.0270	U	0.0270	U	0.0270	U	0.00760	I	0.00540	U			0.00540	U
TKN	mg/L	14.6		0.150	U	0.294		0.366		0.255				0.311	
TN	mg/L	14.63				0.32									
ortho-Phosphate	mg/L	0.00782	I	0.00140	U	0.00140	U	0.00140	U	0.00140	U			0.00140	U
Total Phosphorus (P)	mg/L	0.0535		0.00220	U	0.00220	U	0.00220	U	0.00220	U			0.00220	U
Alkalinity	mg/L	126	J	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
Bicarbonate Alkalinity	mg/L as $CaCO_3$	55.3	J	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
Sulfide	mg/L	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
Total Dissolved Solids	mg/L					5.00	U					5.00	U		
Salinity	*	62.7	J												
Tritium	pCi/L														

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
* PSS-78 salinity is unitless.
Sample 091013-DUP is a duplicate of TPSWC-1B.
Sample 091113-DUP2 is a duplicate of TPSWC-5B.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.2-3. Summary of Surface Water Analytical Results from the December 2013 Sampling Event

Parameter	Units	TPBBSW-3B 12/11/2013		TPBBSW-4B 12/11/2013		TPBBSW-5B 12/11/2013		TPSWC-1T 12/5/2013		120513-Dup 12/5/2013		TPSWC-1B 12/5/2013		TPSWC-2T 12/5/2013		TPSWC-2B 12/5/2013		TPSWC-3T 12/5/2013		TPSWC-3B 12/5/2013		TPSWC-4T 12/10/2013		TPSWC-4B 12/10/2013	
Temperature	°C	26.18		25.27		25.60		23.87				23.05		25.43		23.79		24.97		23.40		25.76		27.24	
pH	SU	7.99		7.94		7.71		7.39				7.18		7.65		7.32		7.91		7.52		7.19		6.89	
Dissolved Oxygen	mg/L	6.79		8.89		5.3		6.09				1.27		7.42		3.4		7.44		2.5		1.72		0.28	
Specific Conductance	µS/cm	47355		47251		45990		648				778		619		639		636		1378		22129		28910	
Turbidity	NTU	1.15		0.54		0.55		0.85				1.24		0.38		0.64		0.68		3.36		1.08		7.36	
Silica, dissolved	mg/L																								
Calcium	mg/L																								
Magnesium	mg/L																								
Potassium	mg/L																								
Sodium	mg/L	9680		9550		9190		58.4		58.3		69.2		58.7		59.8		60.2		180		3800		5260	
Boron	mg/L																								
Strontium	mg/L																								
Bromide	mg/L																								
Chloride	mg/L	18200		18000		17300		115		115		139		119		120		122		364		7290		10400	
Fluoride	mg/L																								
Sulfate	mg/L																								
Total Ammonia	mg/L as N																								
Ammonium ion (NH_4^+)	mg/L																								
Unionized NH_3	mg/L																								
Nitrate/Nitrite	mg/L as N																								
TKN	mg/L																								
TN	mg/L																								
ortho-Phosphate	mg/L																								
Total Phosphorus (P)	mg/L																								
Alkalinity	mg/L																								
Bicarbonate Alkalinity	mg/L as $CaCO^3$																								
Sulfide	mg/L																								
Total Dissolved Solids	mg/L																								
Salinity	*	30.78		30.72		29.8		0.31	J			0.38	J	0.3	J	0.31	J	0.31	J	0.69	J	13.3		17.78	
Tritium	pCi/L (1σ)																								

NOTES:

Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.

* PSS-78 salinity is unitless.
120513-DUP is a field duplicate of sample 120513-TPSWC-1T
121013-DUP is a field duplicate of sample 121013-TPSWCCS-5T
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.2-3. Summary of Surface Water Analytical Results from the December 2013 Sampling Event

Parameter	Units	TPSWC-5T 12/10/2013		TPSWC-5B 12/10/2013		TPSWC-6T 12/6/2013		TPSWC-6B 12/6/2013		TPSWID-1T 12/10/2013		TPSWID-1B 12/10/2013		TPSWID-2T 12/10/2013		TPSWID-2B 12/10/2013		TPSWID-3T 12/2/2013		TPSWID-3B 12/2/2013		TPSWCCS-1B 12/10/2013		TPSWCCS-2B 12/2/2013	
Temperature	°C	25.62		25.62		23.48		23.40		25.69		25.75		25.89		25.95		24.42		23.56		34.67		28.10	
pH	SU	7.86		7.75		7.21		7.27		7.78		7.78		7.55		7.18		7.63		7.68		8.13		8.2	
Dissolved Oxygen	mg/L	7.08		4.52		2.67		2.05		6.2		5.94		5.24		1.07		6.28		6.06		5.51		5.3	
Specific Conductance	µS/cm	45693		47271		771		779		3289		3292		2718		3214		3947		5713		92911		87950	
Turbidity	NTU	0.51		0.41		0.29		0.23		0.4		0.27		0.22		1.24		6.34		0.18		61.99		56.87	
Silica, dissolved	mg/L																								
Calcium	mg/L																								
Magnesium	mg/L																								
Potassium	mg/L																								
Sodium	mg/L	9110		9260		54.6		57		464		465		370		444		571		888		19200		19200	
Boron	mg/L																								
Strontium	mg/L																								
Bromide	mg/L																								
Chloride	mg/L	18000		18200		97.8		101		859		833		736		865		1120		1740		41600		37000	
Fluoride	mg/L																								
Sulfate	mg/L																								
Total Ammonia	mg/L as N																								
Ammonium ion (NH_4^+)	mg/L																								
Unionized NH_3	mg/L																								
Nitrate/Nitrite	mg/L as N																								
TKN	mg/L																								
TN	mg/L																								
ortho-Phosphate	mg/L																								
Total Phosphorus (P)	mg/L																								
Alkalinity	mg/L																								
Bicarbonate Alkalinity	mg/L as $CaCO^3$																								
Sulfide	mg/L																								
Total Dissolved Solids	mg/L																								
Salinity	*	29.58		30.74		0.38	J	0.38	J	1.72	J	1.72	J	1.4	J	1.67	J	2.09		3.09		66.14		62.32	
Tritium	pCi/L (1σ)																								

NOTES:

Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.

* PSS-78 salinity is unitless.
120513-DUP is a field duplicate of sample 120513-TPSWC-1T
121013-DUP is a field duplicate of sample 121013-TPSWCCS-5T
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.2-3. Summary of Surface Water Analytical Results from the December 2013 Sampling Event

Parameter	Units	TPSWCCS-3B 12/10/2013		TPSWCCS-4T 12/10/2013		TPSWCCS-5T 12/10/2013		121013-Dup 12/10/2013		TPSWCCS-7B 12/10/2013		120213-EB1 12/02/2013		120513-FB1 12/05/2013		120613-FB1 12/06/2013		121013-FB1 41618		121113-FB1 12/11/2013	
Temperature	°C	30.98		29.15		28.67				34.84											
pH	SU	8.18		8.22		8.17				8.22											
Dissolved Oxygen	mg/L	6.15		6.12		4.93				7.66											
Specific Conductance	µS/cm	90569		92534		92242				93266	J										
Turbidity	NTU	74.52		63.08		53.53				48.69											
Silica, dissolved	mg/L																				
Calcium	mg/L																				
Magnesium	mg/L																				
Potassium	mg/L																				
Sodium	mg/L	18400		19300		19600		19300		19600		0.31	U	0.31	U	0.31	U	0.31	U	0.31	U
Boron	mg/L																				
Strontium	mg/L																				
Bromide	mg/L																				
Chloride	mg/L	38800		39800		38100		39700		45900	J	0.25	U	0.25	U	0.25	U	0.297	I	0.313	I
Fluoride	mg/L																				
Sulfate	mg/L																				
Total Ammonia	mg/L as N																				
Ammonium ion (NH_4^+)	mg/L																				
Unionized NH_3	mg/L																				
Nitrate/Nitrite	mg/L as N																				
TKN	mg/L																				
TN	mg/L																				
ortho-Phosphate	mg/L																				
Total Phosphorus (P)	mg/L																				
Alkalinity	mg/L																				
Bicarbonate Alkalinity	mg/L as $CaCO^3$																				
Sulfide	mg/L																				
Total Dissolved Solids	mg/L											5	U	5	U	5	U	5	U	64	
Salinity	*	64.38		66.14		65.91				66.77	J										
Tritium	pCi/L (1σ)																				

NOTES:

Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.

* PSS-78 salinity is unitless.

120513-DUP is a field duplicate of sample 120513-TPSWC-1T

121013-DUP is a field duplicate of sample 121013-TPSWCCS-5T

KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.2-4. Summary of Surface Water Analytical Results from the March 2014 Sampling Event

Parameter	Units	TPBBSW-3B 03/12/2014		TPBBSW-4B 03/12/2014		031214-DUP 03/12/2014		TPBBSW-5B 03/12/2014		TPSWC-1T 03/07/2014		TPSWC-1B 03/07/2014		TPSWC-2T 03/07/2014		TPSWC-2B 03/07/2014		TPSWC-3T 03/07/2014		TPSWC-3B 03/07/2014		030714-DUP 03/07/2014		TPSWC-4T 03/04/2014		TPSWC-4B 03/04/2014	
Temperature	°C	25.15		24.80				25.00		26.27		25.10		25.63		25.49		25.04		25.03				25.62		26.03	
pH	SU	8.35		8.21				8.19		8.03		7.63		8.34		8.14		8.23		8.18				7.62		7.63	
Dissolved Oxygen	mg/L	6.95		7.03				6.00		7.54		4.70		7.77		6.95		7.94		7.70				3.38		3.24	
Specific Conductance	µS/cm	51939		51356				48399		771		785		913		911		1279		1296				16204		19942	
Turbidity	NTU	0.65		0.51				0.75		1.86		3.77		1.33		2.24		2.26		2.31				0.56		6.99	
Silica, dissolved	mg/L																										
Calcium	mg/L	426		418		413		386		66.5		68.6		72.1		74		85.5		85.8		86.9		224		244	
Magnesium	mg/L	1150		1130		1110		1030		10.7		10.8		10.2		10.6		15		15.2		15.3		300		374	
Potassium	mg/L	435		428		425		385		3.6		3.74		3.93		4.04		5.11		5.07		5.15		110		141	
Sodium	mg/L	10900		10700		10900		10100		74.9		76.9		98		97.9		146		150		151		2860		3580	
Boron	mg/L	4.75		4.76		4.69		4.21		0.0508		0.0528		0.0472	I	0.0486	I	0.0682		0.0582		0.0568		1.16		1.49	
Strontium	mg/L	7.73		7.63		7.49		6.95		0.617		0.627		0.763		0.778		0.888		0.885		0.896		3.19		3.64	
Bromide	mg/L	69.4		68.3		68.3		63		0.294		0.308		0.452		0.457		0.763		0.798		0.799		18.4		23.3	
Chloride	mg/L	19400		20200		19000		17500		139		141		185		183		290		301		302		5240		6560	
Fluoride	mg/L	0.867		0.871		0.889		0.85	J-	0.0722	I	0.0713	I	0.0774	I	0.0777	I	0.0857	I	0.085	I	0.0777	I	0.333		0.403	
Sulfate	mg/L	2850		2770		2770		2550		8.03	J	8.91	J	13.1		13		24.3		19.6		19.6		681		881	
Total Ammonia	mg/L as N	0.163	J	0.111	J	0.0691	J	0.026	U	0.303		0.439		0.34		0.186		0.227		0.231	J	0.404	J	0.386		0.596	
Ammonium ion (NH_4^+)	mg/L	0.186	J	0.131	J			0.05	U	0.365		0.551		0.387		0.221		0.266		0.273	J			0.484		0.747	
Unionized NH_3	mg/L	0.0226	J	0.0112	J			1.7E-05	U	0.023		0.0127		0.0475		0.017		0.0244		0.0223	J			0.0113		0.0184	
Nitrate/Nitrite	mg/L as N	0.039	I	0.0478	I	0.027	U	0.027	U	0.0646	J	0.027	U	0.027	U	0.027	U	0.027	U	0.027	U	0.027	U	0.103		0.0996	
TKN	mg/L	0.554		0.544		0.536		0.533		0.701		0.871		0.702		0.815		0.686		0.757		0.672		1.05		0.952	
TN	mg/L	0.593		0.592		0.563		0.560		0.766	J	0.898		0.729		0.842		0.713		0.784		0.699		1.15		1.05	
ortho-Phosphate	mg/L	0.0117	J	0.0014	U	0.0014	U	0.0014	U	0.0019	I	0.0014	U	0.00241	I	0.00159	I	0.0014	U	0.00187	I	0.00258	I	0.0014	U	0.0014	U
Total Phosphorus (P)	mg/L	0.0022	UJ	0.0022	U	0.0022	U	0.0113	I	0.0122		0.0103		0.0184	I	0.00443	I	0.00566	I	0.00565	I	0.00695	I	0.00283	I	0.003	I
Alkalinity	mg/L	134		138		139		150		167		171		159		153		182		178		175		248		251	
Bicarbonate Alkalinity	mg/L as $CaCO_3$	134		138		139		150		167		171		159		153		178		178		175		248		251	
Sulfide	mg/L	1	U Q	1	U Q	1	U Q	1	U Q	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Salinity	*	34.2		33.7				31.6		0.4	J	0.4	J	0.5	J	0.5	J	0.6	J	0.6	J			9.5		11.9	
Tritium	pCi/L																										

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
* PSS-78 salinity is unitless.
Sample 031214-DUP is a duplicate of BBSW-4B.
Sample 030714-DUP2 is a duplicate of TPSWC-3B.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(
pCi/L = PicoCuries per liter.
Q = Holding time exceeded.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.2-4. Summary of Surface Water Analytical Results from the March 2014 Sampling Event

Parameter	Units	TPSWC-5T 03/04/2014		TPSWC-5B 03/04/2014		TPSWC-6T 03/10/2014		TPSWC-6B 03/10/2014		TPSWID-1T 03/03/2014		TPSWID-1B 03/03/2014		TPSWID-2T 03/03/2014		TPSWID-2B 03/03/2014		TPSWID-3T 03/03/2014		TPSWID-3B 03/03/2014		TPSWCCS-1B 03/03/2014		TPSWCCS-2B 03/05/2014	
Temperature	°C	26.36		25.33		23.52		23.39		28.48		28.00		27.46		25.84		27.37		25.65		37.43		34.53	
pH	SU	7.85		7.96		7.32		7.27		7.60		6.90		7.28		7.22		7.46		7.35		8.42		8.79	
Dissolved Oxygen	mg/L	3.32		3.77		2.25		2.24		5.73		0.39		4.72		3.11		7.83		3.83		8.30		6.85	
Specific Conductance	µS/cm	51652		51703		716		721		4851		10656		3226		3967		3304		3291		109243		107890	J
Turbidity	NTU	0.28		1.03		0.27		0.37		0.75		39.79		0.53		1.09		0.51		0.44		106.30		93.91	
Silica, dissolved	mg/L																					5.64	J	5.47	J
Calcium	mg/L	429		425		77.6		78.9		147		186		139		151		141		138		1050		1020	J
Magnesium	mg/L	1200		1200		8.55		8.73		82.5		186		48.2		61.2		47.8		46.2		2650		2440	J
Potassium	mg/L	420		415		11		11.2		30.7		77		18.1		22.1		18.2		17.6		1000		1010	J
Sodium	mg/L	10400		10500		50.1		51.5		710		1760		430		547		441		430		24500		24100	J
Boron	mg/L	4.59		4.57		0.0785		0.0813		0.353		0.812		0.181		0.225		0.183		0.167		11.7		12	
Strontium	mg/L	7.6		7.5		0.973		0.983		1.71		2.52		1.52		1.71		1.49		1.44		21.2		21.2	
Bromide	mg/L	67.1		67.2		0.488		0.491		4.23		10.9		2.81		3.52		2.9		2.89		175		177	J
Chloride	mg/L	19500		19300		89.1		92.5		1330		3270		827		1060		853		858		46000		48900	J
Fluoride	mg/L	0.932		0.956		0.121		0.12		0.154		0.203		0.12		0.128		0.116		0.109		0.845	J	0.906	J
Sulfate	mg/L	2780		2770		66.3		67.4		145		389		84.4		108		79.7		78.2		7740		7130	J
Total Ammonia	mg/L as N	0.303		0.382		0.178		0.285		0.207		0.713		0.497		0.0272	I	0.18		0.275		0.152	J	0.234	J
Ammonium ion (NH_4^+)	mg/L	0.373		0.466		0.226		0.363		0.259		0.912		0.631		0.05	U	0.227		0.349		0.145	J	0.18	J
Unionized NH_3	mg/L	0.0156		0.0234		0.00229		0.00324		0.00706		0.0048		0.00768		0.000328		0.00416		0.0044		0.0476	J	0.114	J
Nitrate/Nitrite	mg/L as N	0.0289	I	0.027	U	0.029	I	0.037	I	0.0816	J	0.0433	IJ	0.0835	J	0.132	J	0.202	J	0.168	J	0.0389	IJ	0.0445	IJ
TKN	mg/L	0.385	I	0.396	I	0.321	I	0.3	U	0.874	J	1.72	J	0.738	J	0.768	J	0.697	J	0.668	J	10.6	J	0.3	U
TN	mg/L	0.414		0.423		0.350		0.337		0.956	J	1.76	J	0.822	J	0.900	J	0.899	J	0.836	J	10.6	J	0.340	J
ortho-Phosphate	mg/L	0.0014	U	0.0014	U	0.00178	IJ	0.00211	IJ	0.0169	IJ	0.0166	IJ	0.014	UJ	0.014	UJ	0.014	UJ	0.014	UJ	0.014	U	0.0014	U
Total Phosphorus (P)	mg/L	0.00368	I	0.00594	I	0.0022	U	0.0022	U	0.00689	IJ	0.0324		0.00229	IJ	0.00245	IJ	0.00229	IJ	0.00285	IJ	0.0583		0.00752	I
Alkalinity	mg/L	153		147		161		158		344		448		280		298		264		271		151		146	J
Bicarbonate Alkalinity	mg/L as $CaCO_3$	153		147		161		158		344		448		280		298		264		271		54.3		19.3	J
Sulfide	mg/L	1	U Q	1	U Q	1	U	1	U	1	U	4.5		1	U	1	U	1	U	1	U	1	U Q	1	U Q
Salinity	*	33.9		34.0		0.4	J	0.4	J	2.6		6.0		1.7	J	2.1		1.7	J	1.7	J	80.1		79.1	J
Tritium	pCi/L																								

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
* PSS-78 salinity is unitless.
Sample 031214-DUP is a duplicate of BBSW-4B.
Sample 030714-DUP2 is a duplicate of TPSWC-3B.
KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
DUP = Duplicate.
EB = Equipment blank.
FB = Field blank.
I = Value between the MDL and PQL.
J = Estimated (+/- indicate bias).
mg/L = Milligram(s) per liter.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
Q = Holding time exceeded.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.
U = Analyzed for but not detected at the reported value.

Table 3.2-4. Summary of Surface Water Analytical Results from the March 2014 Sampling Event

Parameter	Units	TPSWCCS-3B 03/03/2014		TPSWCCS-4T 03/03/2014		TPSWCCS-5T 03/03/2014		TPSWCCS-7B 03/03/2014		030314-EB1 03/03/2014		030414-FB1 03/04/2014		030714-FB1 03/07/2014		031014-FB1 03/10/2014		031214-FB1 03/12/2014	
Temperature	°C	32.26		29.23		29.22		36.76											
pH	SU	8.39		8.45		8.38		8.56											
Dissolved Oxygen	mg/L	8.79		7.54		8.75		12.30											
Specific Conductance	µS/cm	101963		107858	J	107648	J	101912											
Turbidity	NTU	102.50		90.78		103.30		261.10											
Silica, dissolved	mg/L	5.33	J-	5.67	J	5.49	J	5.44	J	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
Calcium	mg/L	990		1050	J	1050	J	1010		0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Magnesium	mg/L	2440		2640	J	2620	J	2510		0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Potassium	mg/L	952		993	J	994	J	933		0.19	U	0.19	U	0.19	U	0.19	U	0.19	U
Sodium	mg/L	23200		23600	J	23500	J	22400		0.31	U	0.31	U	0.31	U	0.31	U	0.31	U
Boron	mg/L	10.6		11.5		11.5		11.1		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Strontium	mg/L	20		21.2		20.9		20.3		0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Bromide	mg/L	148		168	J	166	J	171		0.013	U	0.013	U	0.013	U	0.013	U	0.013	U
Chloride	mg/L	41600		47800	J	48500	J	42300		0.25	U	0.476	I	0.364	I	0.25	U	0.25	U
Fluoride	mg/L	0.814	J	0.838	J	0.841	J	0.821	J	0.024	U	0.024	U	0.024	U	0.024	U	0.024	U
Sulfate	mg/L	6470		7290	J	7270	J	7300		0.766		0.25	U	1.11		0.304	I	0.250	U
Total Ammonia	mg/L as N	0.114	J	0.132	J	0.0842	J	0.103	J	0.026	U	0.026	U	0.026	U	0.026	U	0.026	U
Ammonium ion (NH_4^+)	mg/L	0.119	J	0.14	J	0.0915	J	0.0907	J										
Unionized NH_3	mg/L	0.0259	J	0.0284	J	0.0158	J	0.0394	J										
Nitrate/Nitrite	mg/L as N	0.027	UJ	0.0499	IJ	0.0416	IJI	0.0385	IJ	0.0331	I	0.027	U	0.0555		0.027	U	0.027	U
TKN	mg/L	9.74	J	10.7	J	10.5	J	13.3	J	6.55		0.3	U	0.3	U	0.3	U	0.3	U
TN	mg/L	9.77	J	10.7	J	10.5	J	13.3	J										
ortho-Phosphate	mg/L	0.014	U?	0.014	U	0.014	U	0.014	U	0.00325	I	0.00324	I	0.0014	U	0.00399	I	0.00293	I
Total Phosphorus (P)	mg/L	0.0894		0.0282		0.0585		0.0425		0.0022	U	0.0022	U	0.0022	U	0.0022	U	0.0022	U
Alkalinity	mg/L	158		150	J	147	J	169		1.41		1	U	1	U	1	U	1	U
Bicarbonate Alkalinity	mg/L as $CaCO_3$	98.4		94.9	J	102	J	77		1.41		1	U	1	U	1	U	1	U
Sulfide	mg/L	1	U Q	1	U Q	1	U Q	1	U Q	1	U	1	U	1	U	1	U	1	U
Salinity	*	74.0		79.4	J	79.3	J	73.7											
Tritium	pCi/L																		

NOTES:
Laboratory anion and cation results are reported with 3 digits although only the first 2 are significant figures.
* PSS-78 salinity is unitless.
Sample 031214-DUP is a duplicate of BBSW-4B.
Sample 030714-DUP2 is a duplicate of TPSWC-3B.
KEY:

°C = Degrees Celsius.	I = Value between the MDL and PQL	pCi/L = PicoCuries per liter.
µS/cm = MicroSiemen(s) per centim	J = Estimated (+/- indicate bias).	Q = Holding time exceeded.
σ = sigma (Standard Deviation).	mg/L = Milligram(s) per liter.	SU = Standard Unit(s).
$CaCO_3$ = Calcium carbonate.	N = Nitrogen.	TKN = Total Kjeldahl nitrogen.
DUP = Duplicate.	NH_3 = Ammonia.	TN = Total nitrogen.
EB = Equipment blank.	NH_4^+ = Ammonium ion.	TPGW = Turkey Point Groundwater.
FB = Field blank.	NTU = Nephelometric Turbidity Units	U = Analyzed for but not detected at the reported value.

Table 3.2-5. Range of Ion and Nutrient Concentrations in Surface Water

		Biscayne Bay								Interceptor Ditch							
		Post-Uprate				Pre-Uprate				Post-Uprate				Pre-Uprate			
Parameter	Units	Min	Max	Avg	Stdev	Min	Max	Avg	Stdev	Min	Max	Avg	Stdev	Min	Max	Avg	Stdev
Temperature	°C	24.80	29.47	27.08	1.88	17.02	31.91	26.50	5.20	23.56	32.30	28.02	2.37	23.48	31.97	28.15	2.86
pH	SU	7.68	8.35	7.98	0.21	7.70	8.65	8.29	0.20	6.71	8.06	7.46	0.33	6.86	8.52	7.56	0.41
Dissolved Oxygen	mg/L	4.21	8.89	5.89	1.32	4.00	9.22	6.50	1.64	0.39	7.83	4.47	2.17	0.04	7.44	3.10	2.54
Specific Conductance	µS/cm	45990	53783	49733	2682	30586	66855	50200	8419	2520	13700	4495	2615	2076	66251	14066	17711
Turbidity	NTU	0.51	1.94	0.91	0.41	0.44	11.97	2.79	2.77	0.18	39.79	3.96	9.19	0.34	47.92	4.24	7.91
Calcium	mg/L	386	426	407	15	260	540	423	63	100	195	138	30	87	610	211	138
Magnesium	mg/L	1030	1150	1100	43	650	1700	1284	262	33	186	67	41	28	1700	310	447
Potassium	mg/L	385	436	421	19	260	590	417	86	14	77	25	17	12	560	104	144
Sodium	mg/L	8610	10900	9963	703	5400	14000	10349	2066	323	2300	659	462	290	14000	2577	3638
Boron	mg/L	4.21	4.82	4.56	0.26	2.50	5.50	4.41	0.81	0.13	0.81	0.26	0.19	0.10	5.30	1.01	1.40
Strontium	mg/L	6.95	7.73	7.28	0.32	4.30	9.90	7.47	1.35	1.18	2.52	1.55	0.42	1.00	11.00	2.96	2.60
Bromide	mg/L	63.0	70.8	68.3	2.8	32.0	100.0	67.4	17.1	2.2	10.9	3.9	2.4	1.5	85.0	15.9	21.1
Chloride	mg/L	17000	21300	19292	1609	11000	28000	19171	4119	660	4300	1279	855	110	27000	4790	6969
Fluoride	mg/L	0.850	0.893	0.871	0.017	0.100	0.960	0.562	0.241	0.108	0.203	0.132	0.026	0.027	3.200	0.311	0.480
Sulfate	mg/L	2550	2850	2683	118	1200	3700	2557	509	56	389	118	91	30	2900	520	714
Total Ammonia	mg/L as N	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.7	0.3	0.2	0.2	1.9	0.5	0.5
Ammonium ion (NH_4^+)	mg/L	0.0	0.2	0.1	0.1	0.0	0.2	0.1	0.0	0.1	0.9	0.3	0.3	0.2	2.4	0.6	0.6
Unionized NH_3	mg/L	0.000017	0.0226	0.0075	0.0083	0.0039	0.0474	0.0176	0.0138	0.0003	0.0077	0.0040	0.0021	0.0025	0.0457	0.0174	0.0140
Nitrate/Nitrite	mg/L as N	0.0054	0.0478	0.0222	0.0185	0.0047	0.0600	0.0235	0.0154	0.0270	0.2020	0.0742	0.0614	0.0047	0.1200	0.0316	0.0395
Total Kjedahl Nitrogen	mg/L	0.5330	1.2800	0.8060	0.3104	0.1100	0.6300	0.3167	0.1194	0.6680	1.7200	0.9092	0.2892	0.7800	2.4000	1.1289	0.4467
Total Nitrogen	mg/L	0.5600	1.2885	0.8282	0.2951	0.2500	0.6500	0.3500	0.1056	0.8091	1.7633	0.9834	0.2677	0.7883	2.4000	1.2028	0.4513
ortho-Phosphate	mg/L	0.0014	0.0117	0.0031	0.0042	0.0014	0.0110	0.0041	0.0031	0.0014	0.0169	0.0082	0.0071	0.0014	0.0410	0.0172	0.0171
Total Phosphorus	mg/L	0.0022	0.0113	0.0041	0.0036	0.0160	0.0520	0.0261	0.0144	0.0022	0.0324	0.0061	0.0086	0.0044	0.0400	0.0106	0.0096
Alkalinity	mg/L	124	150	135	9	58	180	125	28	206	448	280	67	120	400	235	60
Bicarbonate Alkalinity	mg/L as $CaCO_3$	124	150	135	9	57	180	123	30	206	448	280	67	120	400	235	60
Sulfide	mg/L	1.0	1.0	1.0	0.0	1.0	1.0	1.0	0.0	1.0	4.5	1.4	1.0	1.0	13.0	2.0	2.7
Total Dissolved Solids	mg/L																
Salinity (PSS-78)	*	29.8	35.4	32.5	2.0	18.9	45.3	32.9	6.1	1.3	7.9	2.4	1.5	1.0	44.8	8.7	11.8
Tritium	pCi/L (1σ)																

NOTES:

* PSS-78 salinity is unitless.

KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
Max = Maximum.
mg/L = Milligram(s) per liter.
Min = Minimum.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.

Table 3.2-5. Range of Ion and Nutrient Concentrations in Surface Water

Parameter	Units	L-31E								Cooling Canals							
		Post-Uprate				Pre-Uprate				Post-Uprate				Pre-Uprate			
		Min	Max	Avg	Stdev	Min	Max	Avg	Stdev	Min	Max	Avg	Stdev	Min	Max	Avg	Stdev
Temperature	°C	23.05	30.71	26.59	2.18	19.64	33.11	27.65	3.72	28.10	40.33	33.77	3.46	19.43	40.31	30.26	5.61
pH	SU	6.89	8.34	7.57	0.34	6.53	8.83	7.76	0.42	8.13	8.87	8.50	0.23	7.91	8.94	8.32	0.26
Dissolved Oxygen	mg/L	0.19	7.94	4.05	2.25	0.22	9.44	4.56	2.51	4.28	12.30	6.52	1.83	2.05	8.08	5.39	1.49
Specific Conductance	µS/cm	402	55524	14173	20724	422	63421	15880	22785	74015	109243	90037	11519	68344	88902	80787	5067
Turbidity	NTU	0.23	9.43	1.72	2.24	0.34	107.80	6.51	13.75	28.15	261.10	74.83	46.60	3.18	17.27	7.93	3.46
Calcium	mg/L	50	443	163	147	44	560	189	175	778	1050	917	119	570	950	753	79
Magnesium	mg/L	6	1200	288	461	6	1700	379	586	1920	2650	2272	303	1800	3000	2243	251
Potassium	mg/L	2	437	108	169	3	540	126	190	769	1010	901	88	560	870	706	82
Sodium	mg/L	31	11500	2715	4143	27	13000	3052	4668	15300	24500	19104	3022	15000	22000	17700	1645
Boron	mg/L	0.04	4.59	1.14	1.79	0.03	5.70	1.29	1.97	8.32	12.00	10.09	1.43	6.20	11.00	7.61	0.85
Strontium	mg/L	0.51	7.60	2.44	2.70	0.42	9.60	2.87	3.21	15.40	21.20	18.46	2.49	12.00	18.00	14.20	1.25
Bromide	mg/L	0.2	72.5	17.5	27.9	0.0	110.0	20.8	33.1	127.0	177.0	150.8	19.0	52.0	270.0	118.1	28.1
Chloride	mg/L	54	22900	5382	8236	39	28000	6089	9337	29800	48900	39008	5807	27000	39000	34114	2902
Fluoride	mg/L	0.064	0.956	0.281	0.318	0.020	2.000	0.340	0.468	0.720	0.906	0.789	0.062	0.020	6.500	1.181	1.562
Sulfate	mg/L	1	2780	676	1080	2	4000	783	1220	4990	7740	6208	1078	1300	5200	4270	732
Total Ammonia	mg/L as N	0.0	0.6	0.2	0.1	0.1	0.4	0.2	0.1	0.1	0.2	0.1	0.0	0.1	0.5	0.2	0.1
Ammonium ion (NH_4^+)	mg/L	0.0	0.7	0.3	0.2	0.1	0.5	0.2	0.1	0.07	0.2	0.1	0.0	0.1	0.7	0.2	0.1
Unionized NH_3	mg/L	0.000017	0.0475	0.0113	0.0110	0.0026	0.0316	0.0109	0.0071	0.0158	0.1140	0.0408	0.0250	0.0000	0.0568	0.0245	0.0115
Nitrate/Nitrite	mg/L as N	0.0060	0.1030	0.0311	0.0246	0.0047	0.5500	0.0813	0.1497	0.0270	0.0499	0.0346	0.0085	0.0047	0.1300	0.0377	0.0322
Total Kjedahl Nitrogen	mg/L	0.3000	2.9200	0.8858	0.5293	0.4700	1.4000	0.9806	0.2890	9.7400	17.7000	13.2764	2.5258	1.5000	2.5000	2.0067	0.2935
Total Nitrogen	mg/L	0.3370	2.9406	0.9169	0.5278	0.4700	1.6000	1.0589	0.3114	9.7670	17.7270	13.3101	2.5214	0.8700	3.0000	2.0541	0.4078
ortho-Phosphate	mg/L	0.0014	0.0024	0.0015	0.0003	0.0014	0.0049	0.0021	0.0014	0.0014	0.0162	0.0099	0.0052	0.0014	0.0870	0.0137	0.0285
Total Phosphorus	mg/L	0.0022	0.0184	0.0046	0.0040	0.0044	0.0420	0.0106	0.0108	0.0075	0.0894	0.0475	0.0206	0.0044	0.0730	0.0276	0.0167
Alkalinity	mg/L	109	251	161	41	42	270	157	49	124	169	140	15	73	190	143	23
Bicarbonate Alkalinity	mg/L as $CaCO_3$	109	251	161	41	42	270	157	49	19	102	62	29	73	190	135	27
Sulfide	mg/L	1.0	1.0	1.0	0.0	1.0	1.1	1.0	0.0	1.0	1.4	1.0	0.1	1.0	1.6	1.0	0.1
Total Dissolved Solids	mg/L																
Salinity (PSS-78)	*	0.2	36.8	9.1	13.6	0.2	42.6	10.2	15.1	50.8	80.1	63.9	9.7	46.6	67.1	56.8	4.3
Tritium	pCi/L (1σ)																

NOTES:

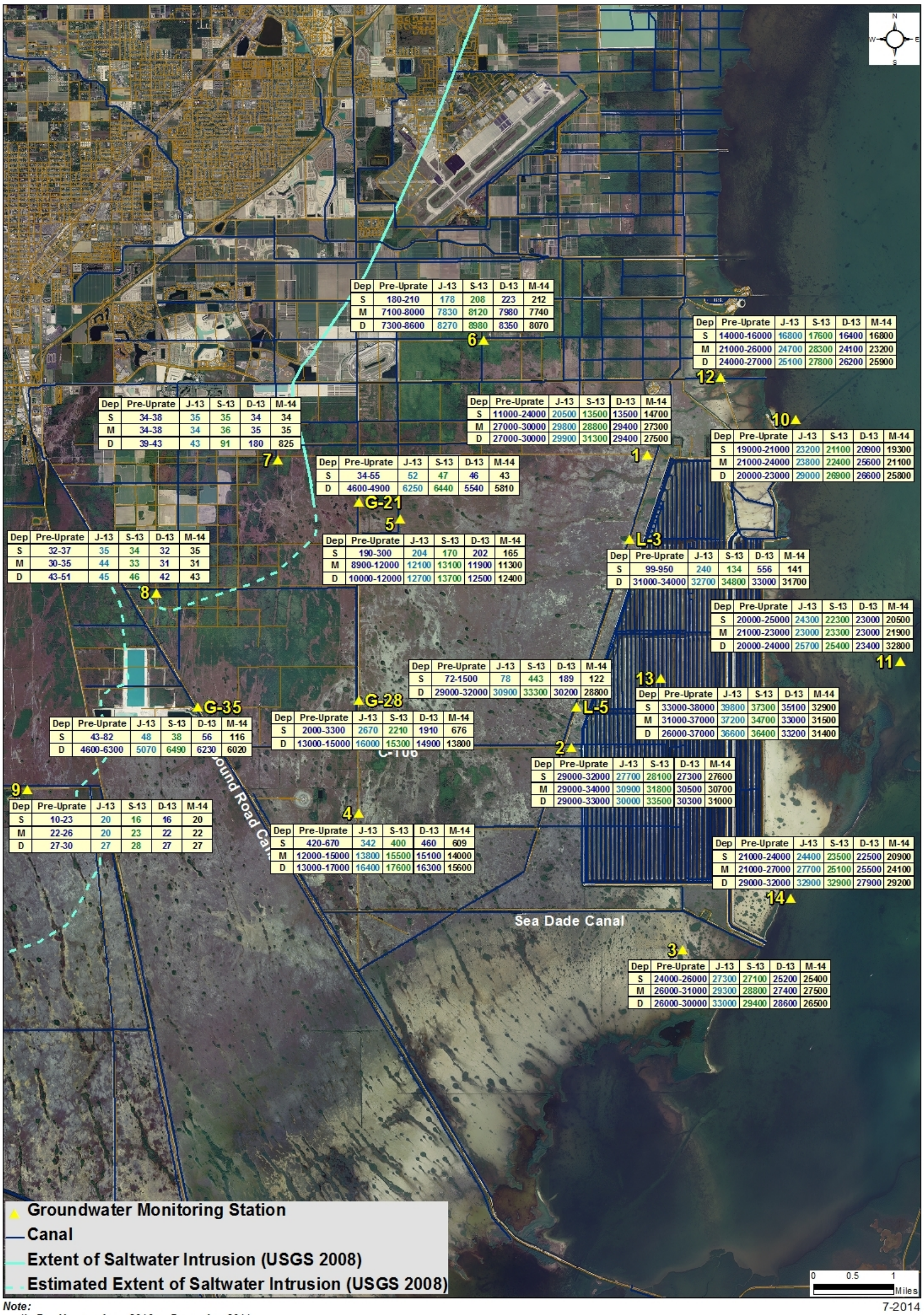
* PSS-78 salinity is unitless.

KEY:

°C = Degrees Celsius.
µS/cm = MicroSiemen(s) per centimeter.
σ = sigma (Standard Deviation).
$CaCO_3$ = Calcium carbonate.
Max = Maximum.
mg/L = Milligram(s) per liter.
Min = Minimum.
N = Nitrogen.
NH_3 = Ammonia.
NH_4^+ = Ammonium ion.
NTU = Nephelometric Turbidity Units(s).
pCi/L = PicoCuries per liter.
SU = Standard Unit(s).
TKN = Total Kjeldahl nitrogen.
TN = Total nitrogen.
TPGW = Turkey Point Groundwater.

FIGURES

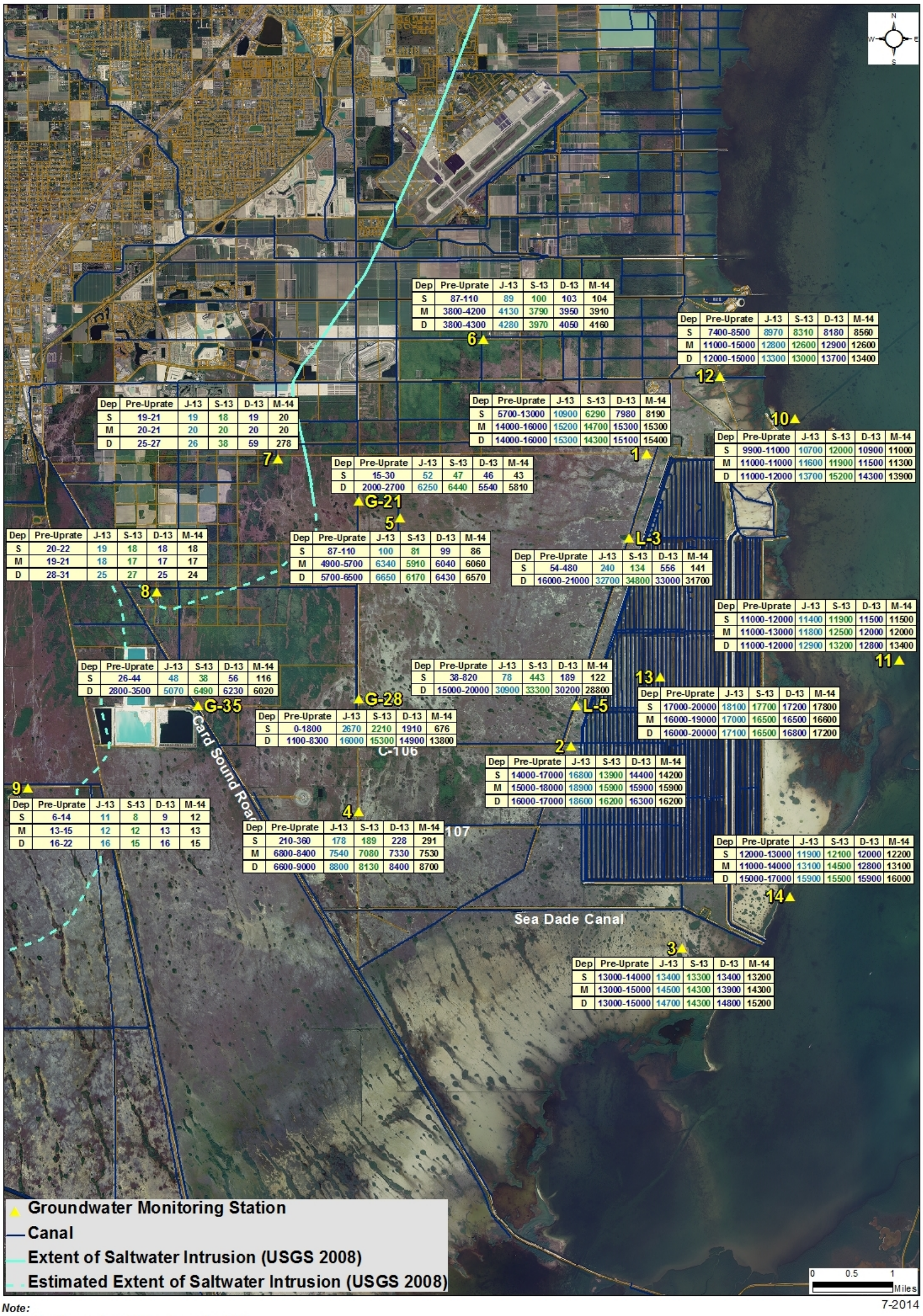
Figure 3.1-1. Typical Groundwater Field Sampling Setup.



Note:
1) *Pre-Uprate: June 2010 to December 2011.*
2) *J-13: June 2013; S-13: September 2013; D-13: December 2013; M-14: March 2014.*
3) *Samples for wells L-5, L-31, G-21, G-28, and G-35 were taken at depths of 18 and 58 ft.*
4) *S: Shallow; M: Intermediate; D: Deep.*
5) *Secondary Standard per Florida Drinking Water = 250 mg/L.*

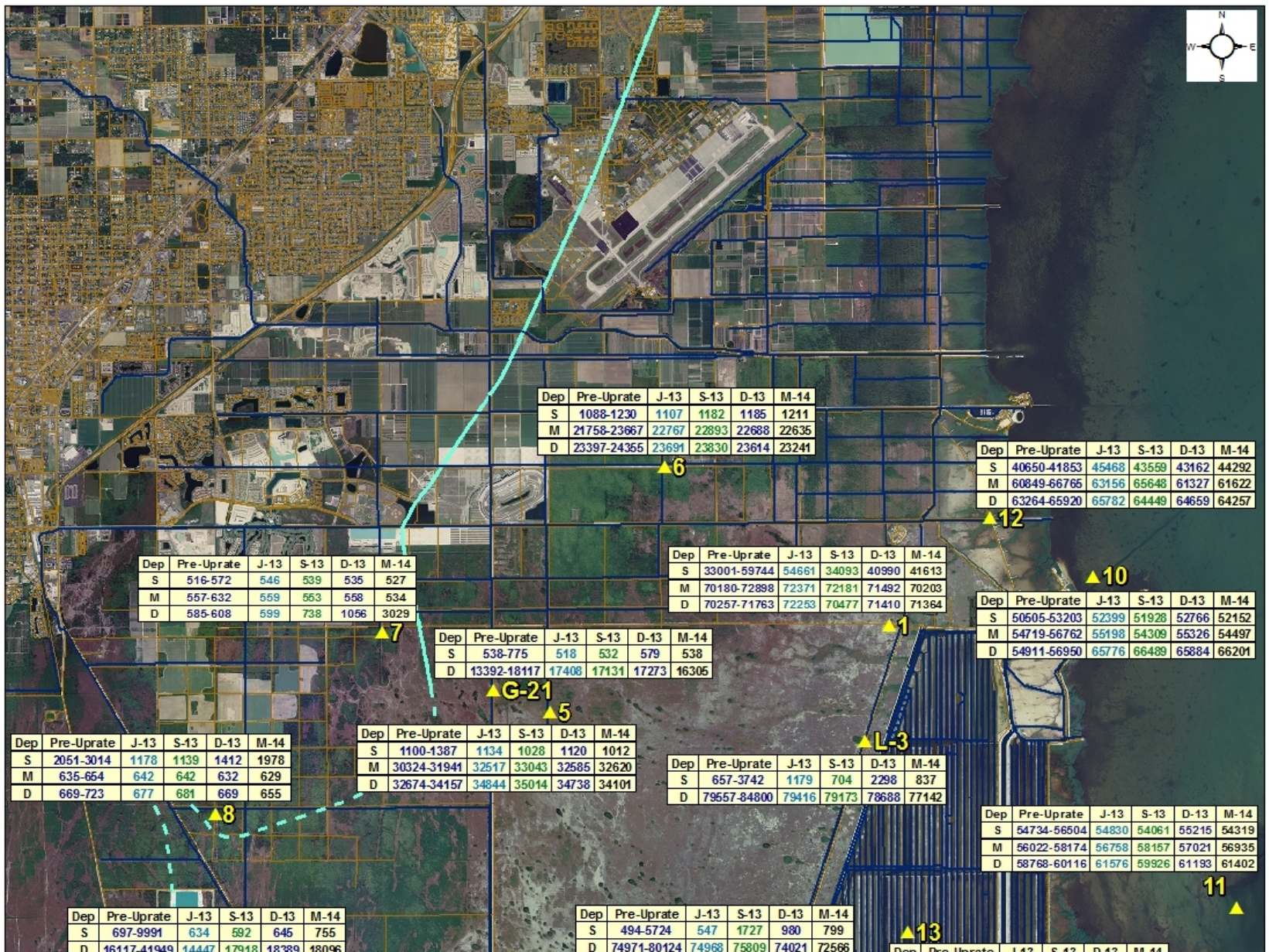
7-2014

Figure 3.1-2. Range (pre-Uprate) and Results (post-Uprate) of Quarterly Groundwater Samples for Chloride (mg/L).



Note:
1) *Pre-Uprate: June 2010 to December 2011.*
2) *J-13: June 2013; S-13: September 2013; D-13: December 2013; M-14: March 2014.*
3) *Samples for wells L-5, L-31, G-21, G-28, and G-35 were taken at depths of 18 and 58 ft.*
4) *S: Shallow; M: Intermediate; D: Deep.*
5) *Secondary Standard per Florida Drinking Water = 160 mg/L.*

Figure 3.1-3. Range (pre-Uprate) and Results (post-Uprate) of Quarterly Groundwater Samples for Sodium (mg/L).



Note:

1) *Pre-Uprate: June 2010 to December 2011.*
2) *J-13: June 2013; S-13: September 2013; D-13: December 2013; M-14: March 2014.*
3) *Samples for wells L-5, L-31, G-21, G-28, and G-35 were taken at depths of 18 and 58 ft.*
4) *S: Shallow; M: Intermediate; D: Deep.*

Figure 3.1-4. Range (pre-Uprate) and Results (post-Uprate) of Quarterly Groundwater Samples for Specific Conductance (µS/cm).

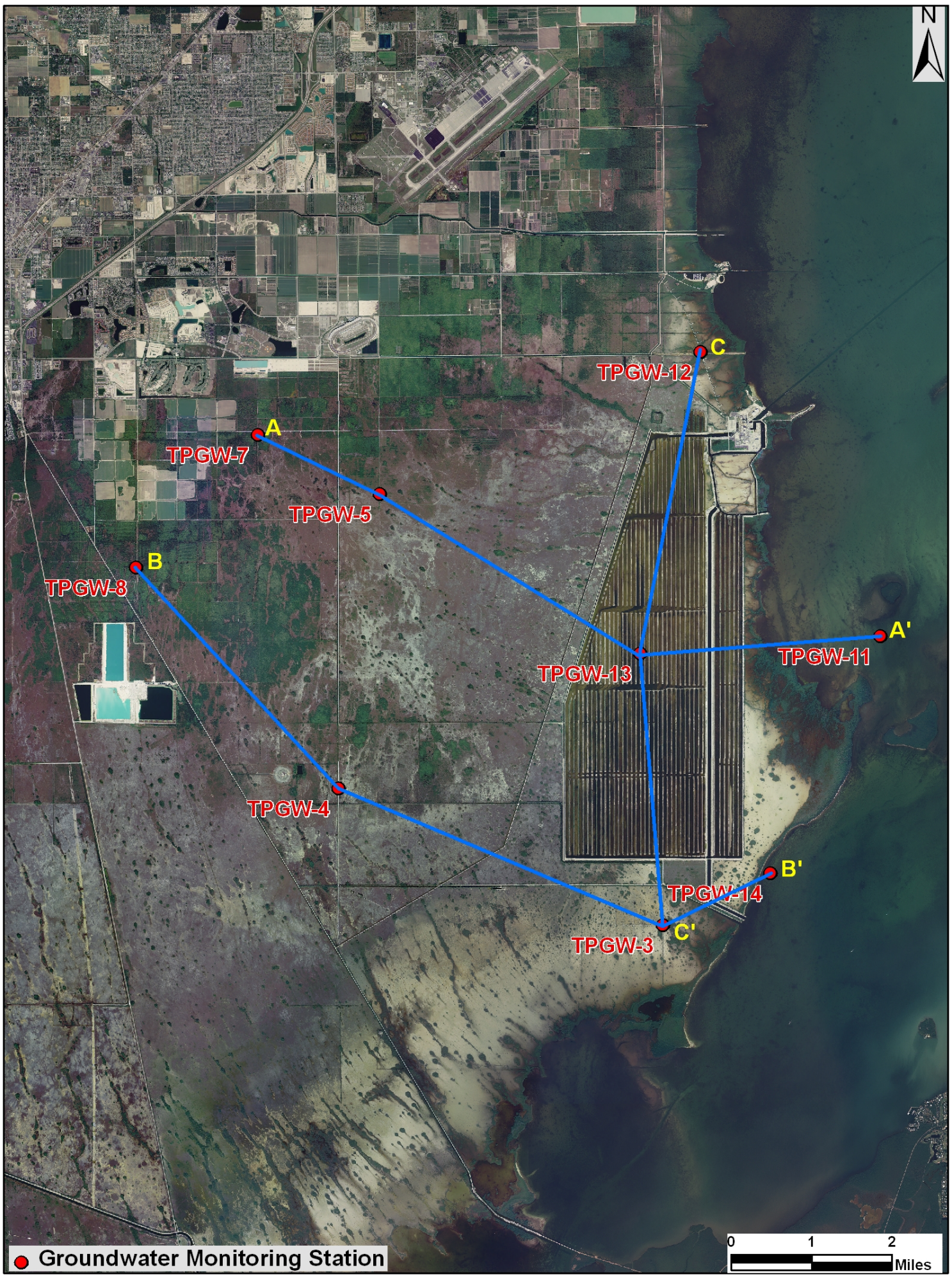


Figure 3.1-5. Locations of Aquifer Cross Sections for Groundwater Chloride Concentrations.

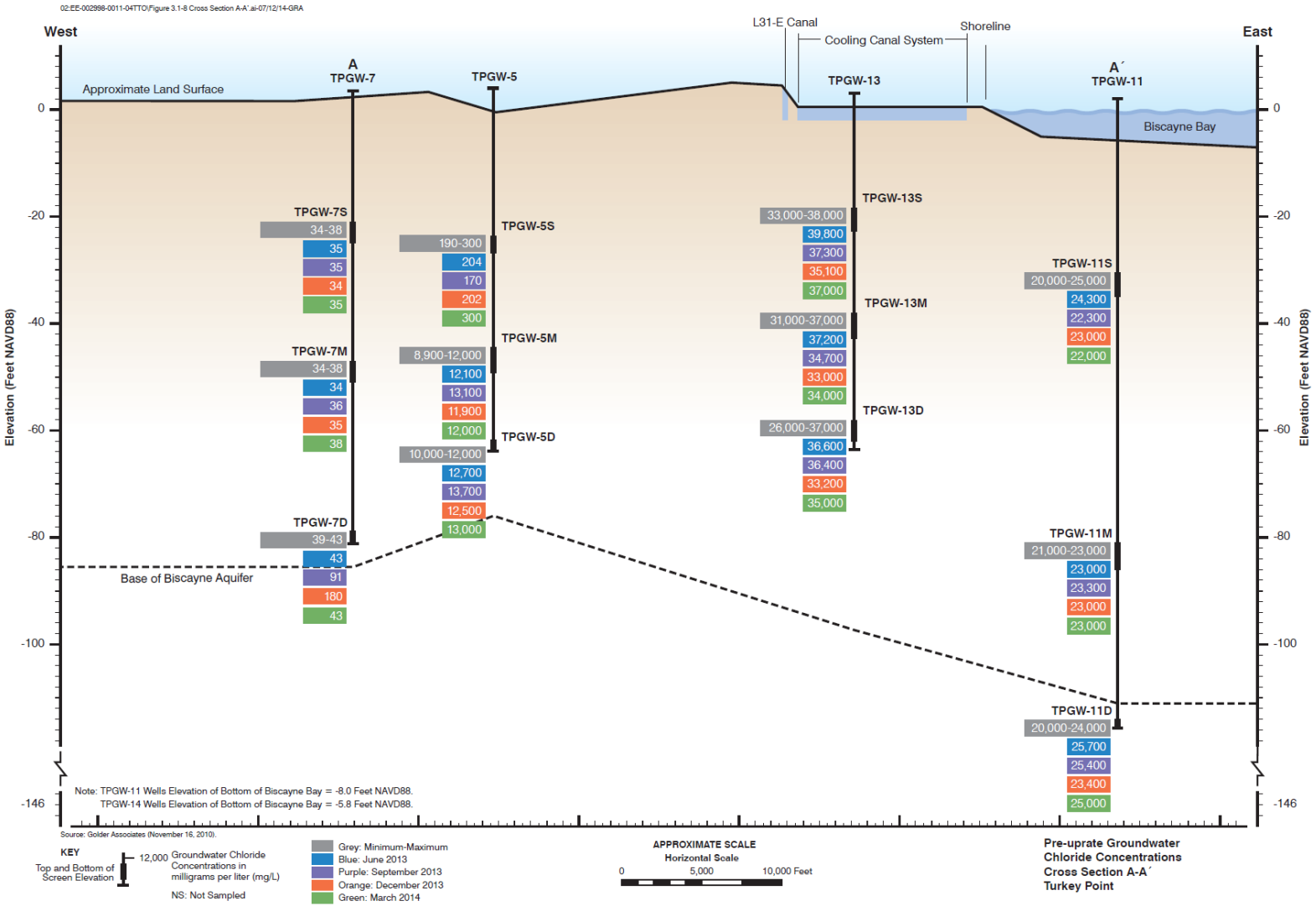


Figure 3.1-6. Cross Section A-A' Showing Quarterly Groundwater Chloride Concentrations from June/July 2010 through June 2014.

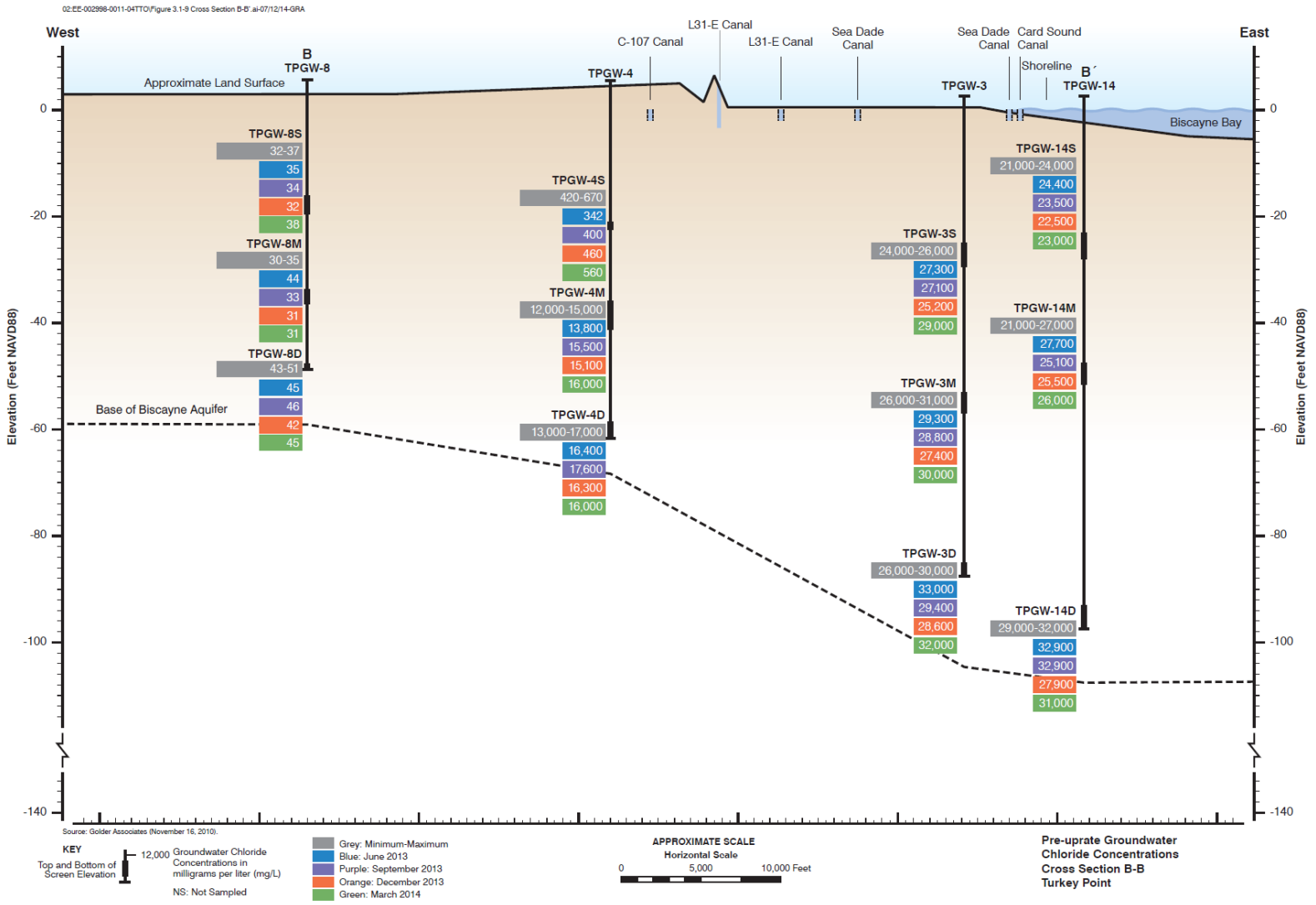


Figure 3.1-7. Cross Section B-B' Showing Quarterly Groundwater Chloride Concentrations from June/July 2010 through June 2014.